





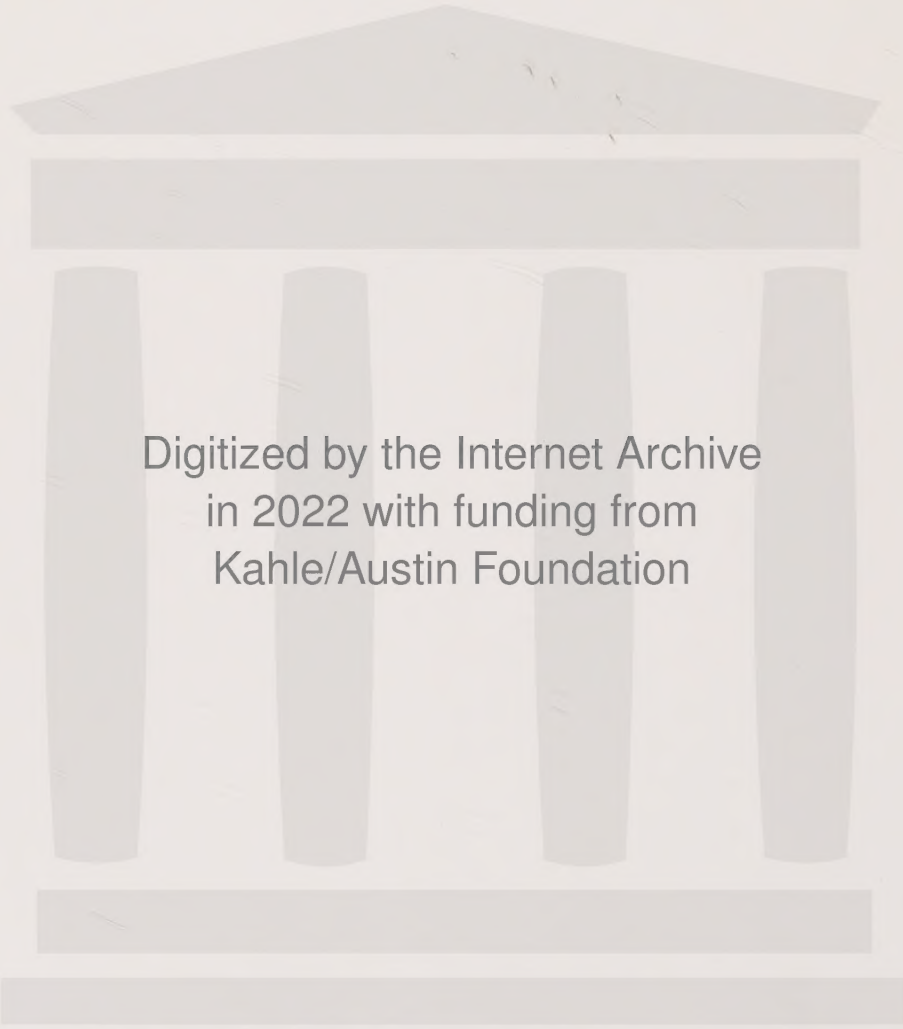






# KNOTS

USEFUL <sup>AND</sup> ORNAMENTAL



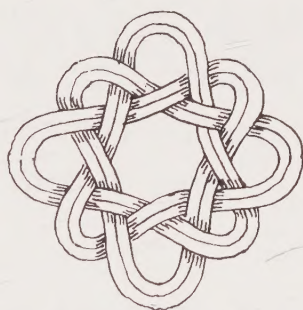
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# KNOTS

## USEFUL AND ORNAMENTAL

BY

GEORGE RUSSELL SHAW



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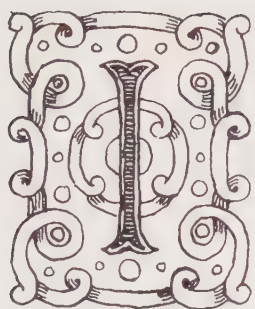
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INSCRIBED  
TO  
ROBERT GOULD SHAW  
BY HIS  
BROTHER





IN the United States, the study of knots has moved westward and may be found in the curriculum of western State Colleges. There the AB seaman, the familiar tar of the deep seas, finds a worthy coadjutor in the Mexican Vaquerro, the mounted Cowboy, skilful in the training of horses, in the embellishment of saddlery, very skilful with the rope, bringing with him names of Spanish origin—lasso, cinch, lariat, latigo hondo—now permanently grafted on the English tongue as it is spoken in all the ranches beyond the Mississippi.

In many details incidental to the care and breeding of stock, to the cultivation of land, to the harvest, its storage and transportation, there are occasions for the use of cordage where the knowledge of reliable knots, appropriate for whatever emergency, is an important part of the ranchman's education.

In the first edition, #64 braid of the New Bedford Textile Co. was recommended for practice in tying knots. If the ends when cut, are dipped in paste or rubber cement and are rolled between the fingers, the strands will not unravel and a rigid end will result, very convenient for reeving through eyelets or loops.





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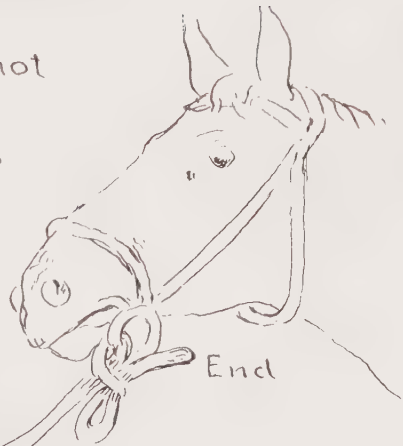
DEFINITIONS

The End of a Line

is the part that ties the Knot  
shown thus   
on the drawings

The Standing Part

is the rest of the Line  
shown unfinished  
on the drawings



A

as at A

Standing Part

The Bight is the part of the line between its ends

A Bight

is a more or less pronounced  
bend

in a line - Figs. II, a or b

II-a

II-b



III

A knot may be tied  
with the End  
Fig. III  
or  
with the Bight  
Fig. IV

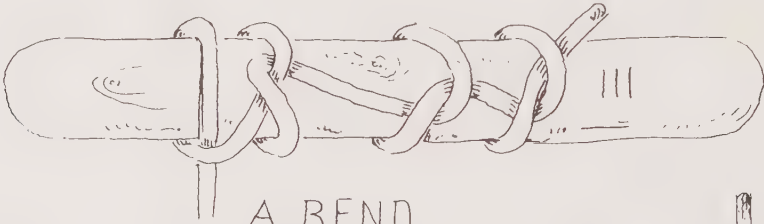
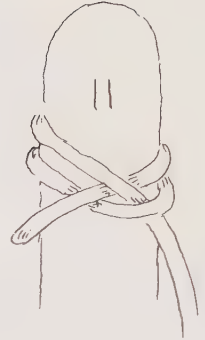
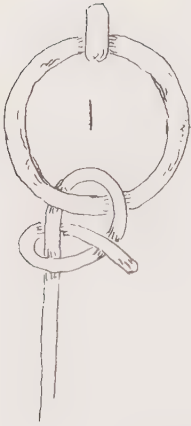


IV

2

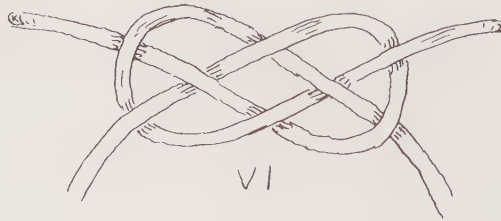
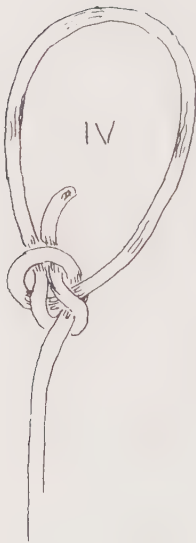
## A HITCH

as here understood  
is a Knot  
tied to a  
ring, spar, post, cable  
or  
other anchorage  
not a part of the knot itself  
Figs. I, II, III.

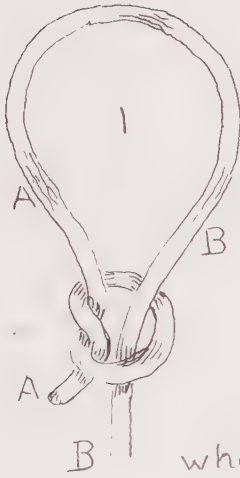


## A BEND

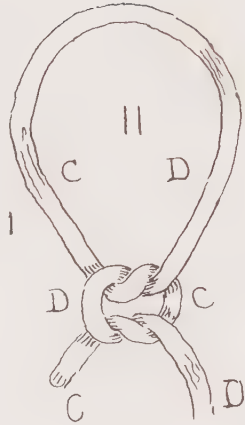
is a Knot uniting  
two lines  
or two parts of the same line  
where  
each line or each part  
is an integral part of the Knot  
Figs IV, V, VI.



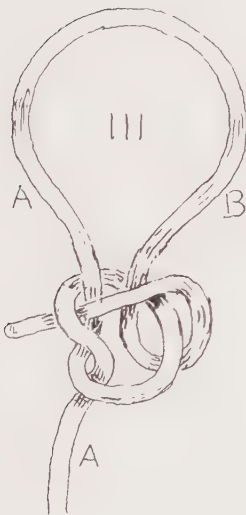
# NOOSE and LOOP



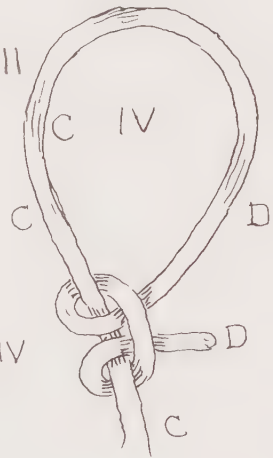
A Noose  
is tied with  
a Hitch  
of one of its parts A-A  
around the other B-B,  
which remains straight, Fig. I



A Loop  
is tied with  
a Bend  
where both parts C & D combine  
to form the knot  
Fig II



A Noose Fig. I  
may become a Loop Fig. III  
by tying a Hitch  
in the  
running part B

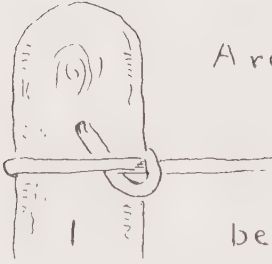


A Loop Fig II  
may become a Noose Fig. IV  
when one  
of its parts C-C-C  
can be straightened



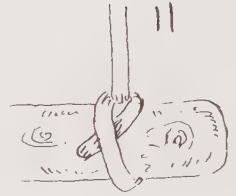
4

## HALF HITCH



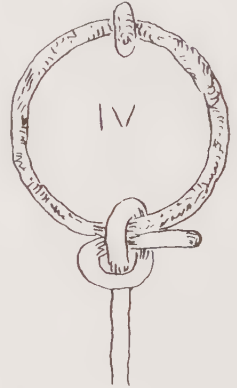
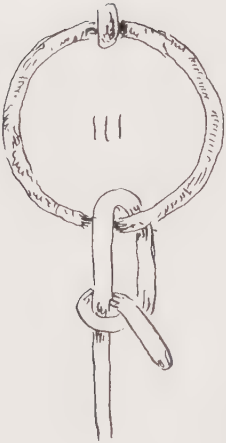
Around turn of a line about  
a post or spar

One part  
of the line  
bears or jams upon the other  
Figs. I & II

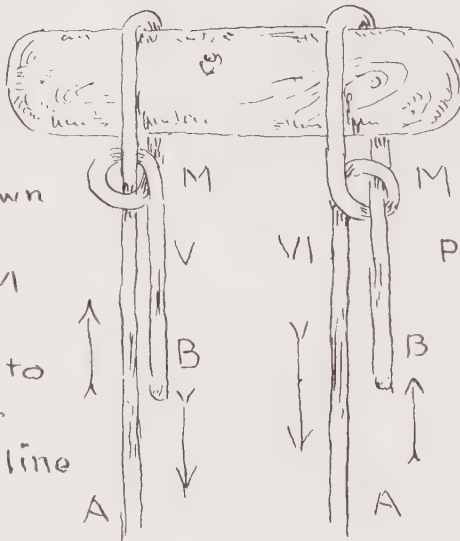


or

A turn  
of the end of a line  
around the  
standing part  
Figs III, IV



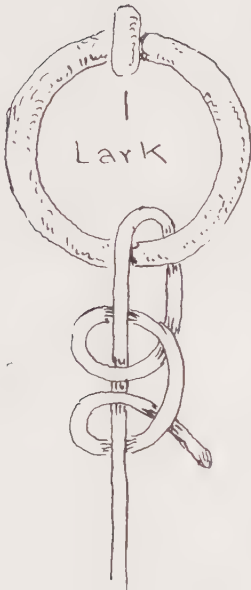
In Fig. V by  
pulling B down  
and A up  
the hitch M  
will be  
transferred to  
the other  
part of the line  
Fig. VI



In Fig. VI  
by  
pulling A down  
and B up  
the hitch M  
regains  
its original  
position

5

TWO  
HALF HITCHES



It will be seen later  
that the knot  
of

Fig. I - Lark  
is a form of the  
Reef Knot

page  
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Fig. II - Clove  
is a form of the  
Granny

page 32

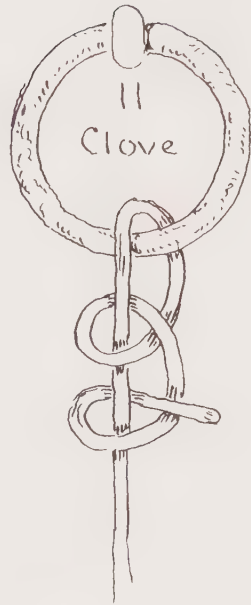


Fig. III - Crossed Lark is  
a form of the  
Oblique Square Knot  
page 20

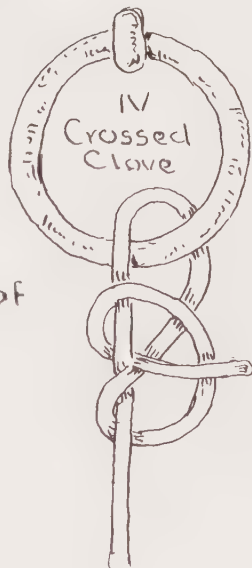
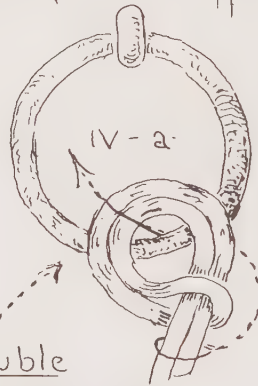
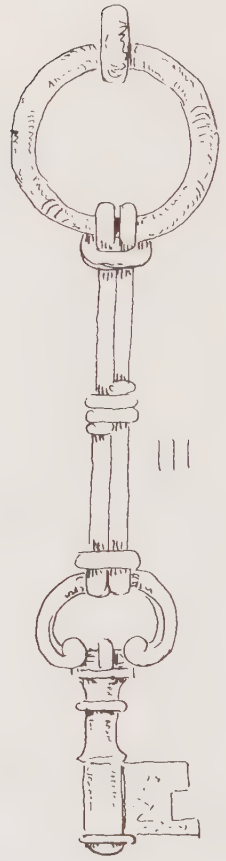
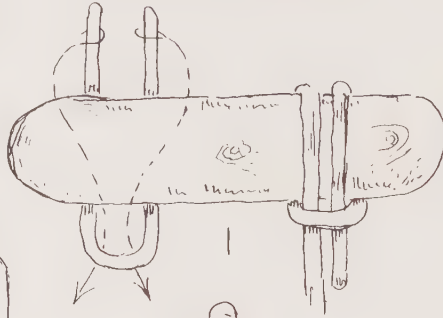
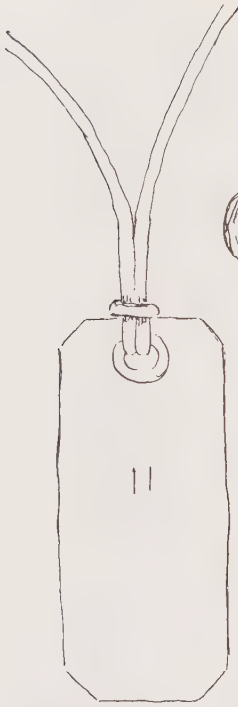
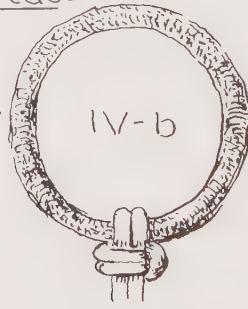
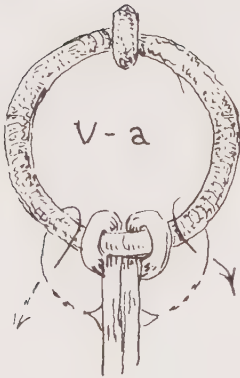


Fig. IV - Crossed Clove, of  
the  
Oblique Granny  
page 33

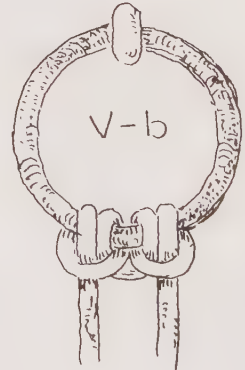
# LARK'S HEAD



## Double Lark's Head



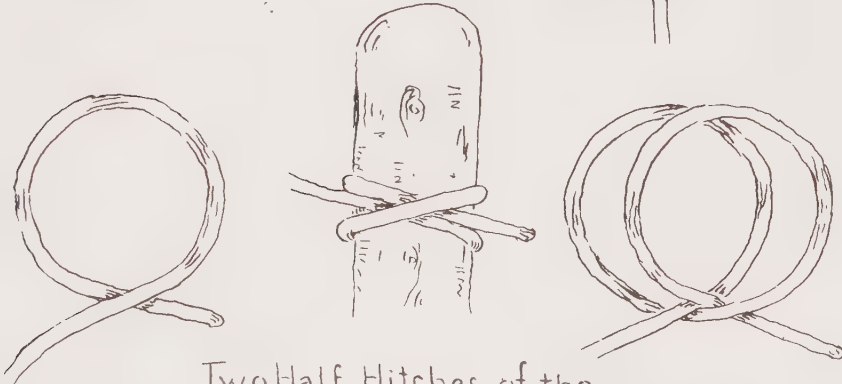
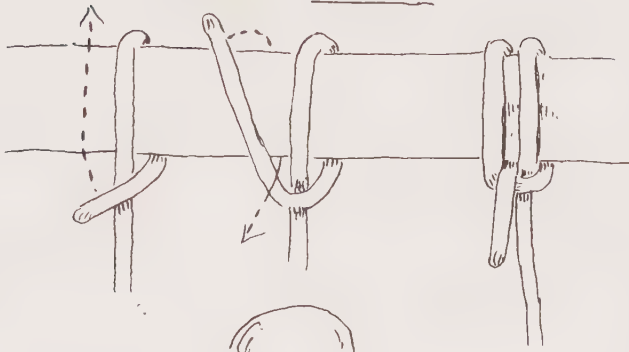
## Triple Lark's Head Figs. V-a & V-b





7

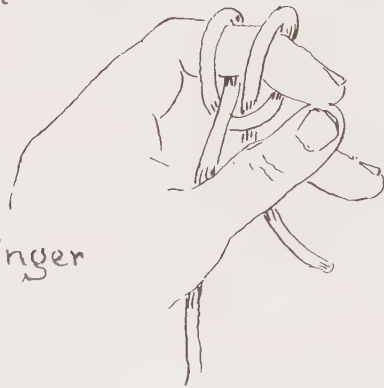
# CLOVE HITCH



Two Half Hitches of the  
same lay  
over  
a post

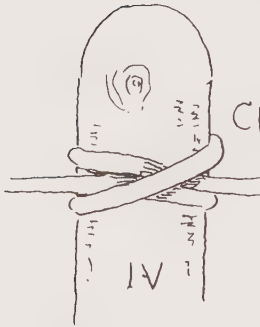
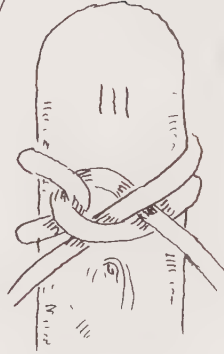
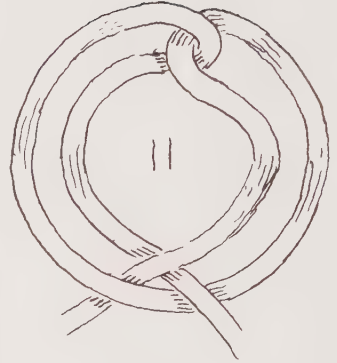
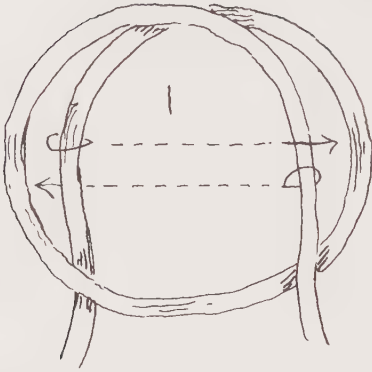


over the finger

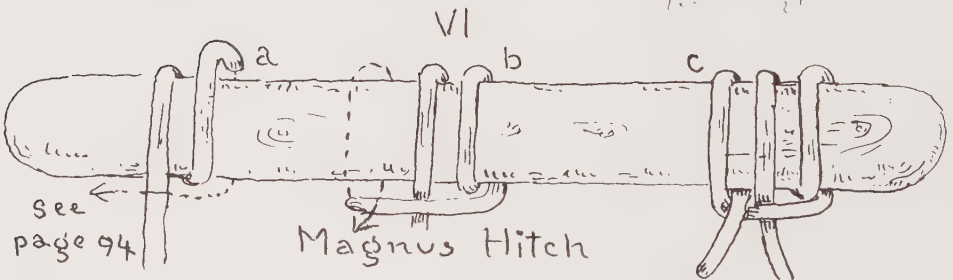
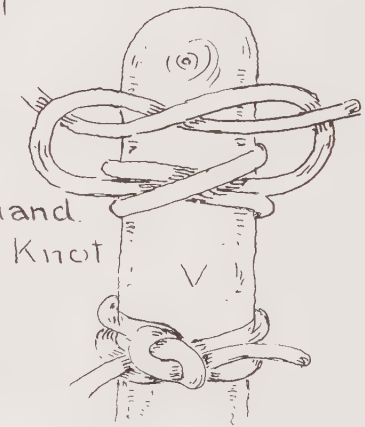


# CLOVE HITCH

with  
Double Loop  
Figs. I—III



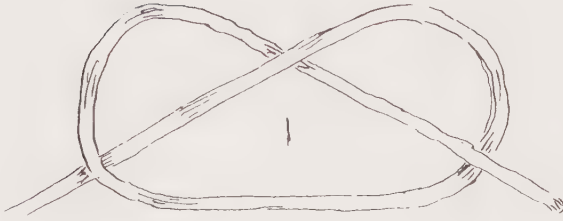
Clove Hitch  
and  
Overhand.



see  
page 94

Magnus Hitch

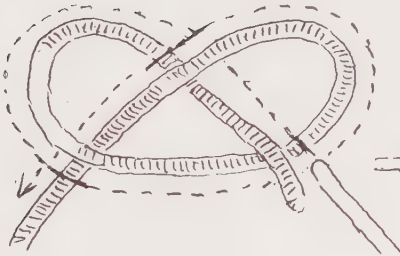
# OVERHAND KNOT



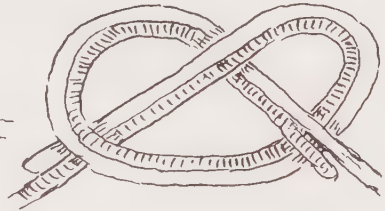
Figs. I, II  
Overhand Knot

Fig. III  
Overhand Noose

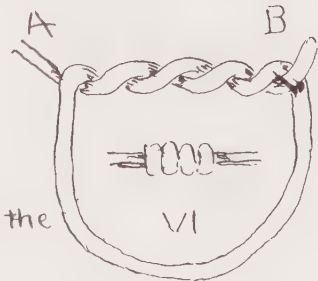
The Knot tied with the bight of the line



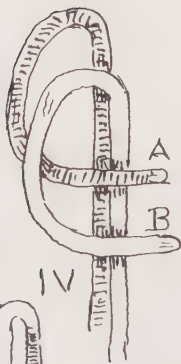
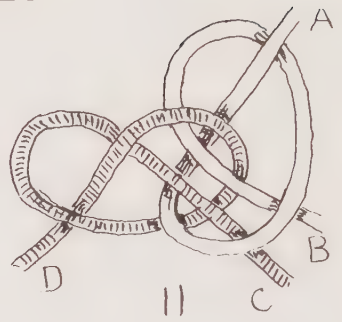
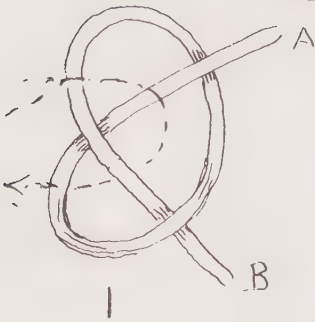
Overhand  
Bend



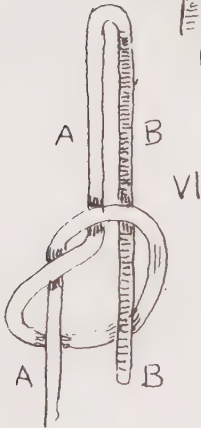
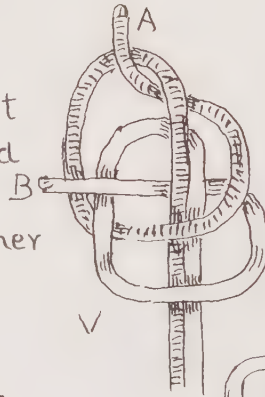
Multiple  
Overhand Knots  
Pull A & B sharply  
Figs. V, VI  
Fig. V is also known as the  
Blood Knot



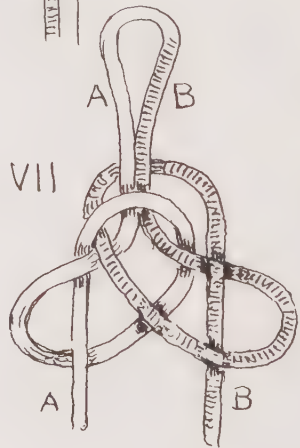
# TWIN OVERHAND KNOTS



The same Knot may be tied in this manner

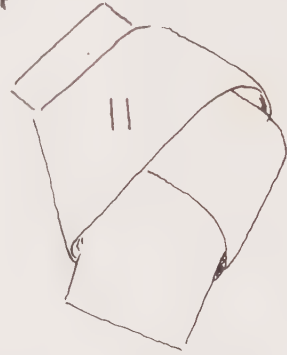
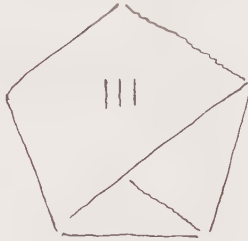
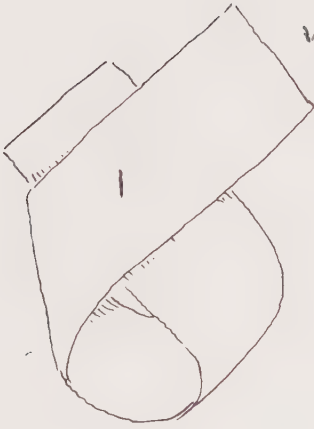


From an Indian Whip



# THE OVERHAND KNOT

when tied with a paper  
band  
takes the form of  
a pentagon



Let one end  
of a length of tape  
be turned over  
three times  
and then be pasted  
onto the  
other end, Fig. IV

If the tape is  
cut through along  
the dotted line  
it becomes an endless  
Overhand Knot  
Fig. V.

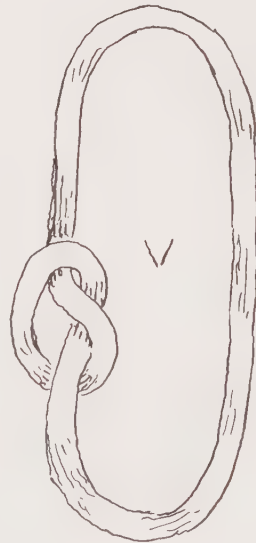




FIGURE OF EIGHT

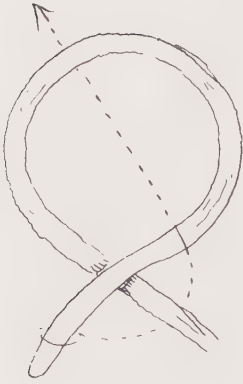


FIGURE OF EIGHT BEND

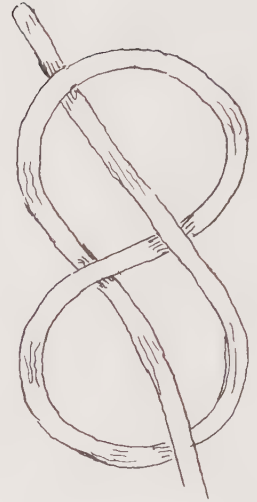
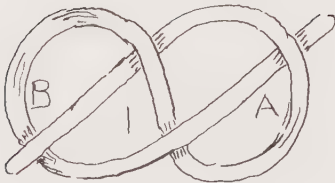


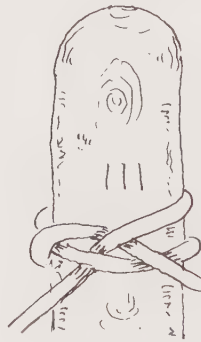
Figure of Eight and the  
Miller's Knot

See page 106

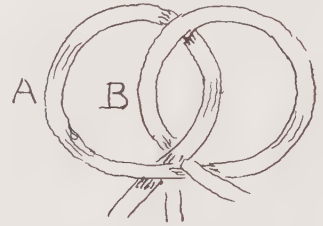
Fig. of 8



Lay A over  
onto B  
Figs. I, II



Miller's Knot



Throw the two loops  
over a post  
Fig III

The Overhand Knot

Fig. IV

can also pass  
into the  
Miller's Knot  
by shifting C & D

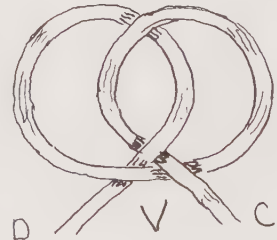
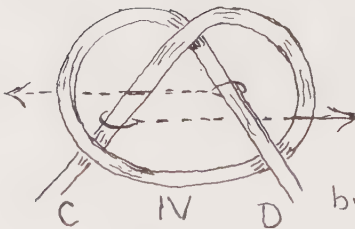
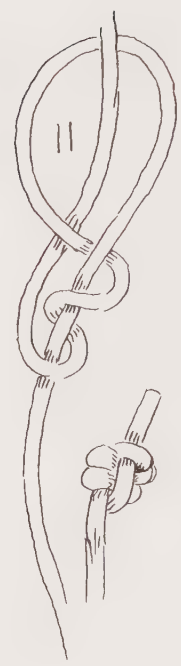


FIGURE OF EIGHT

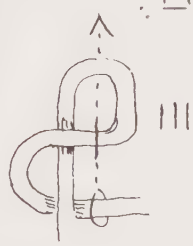


Packer's  
Noose



Stevedore  
Knot

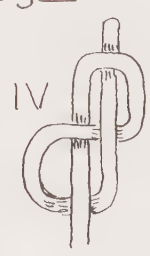
Single  
Figure of Eight



III



V



IV

Double Figure of Eight  
Figs. VI-VIII



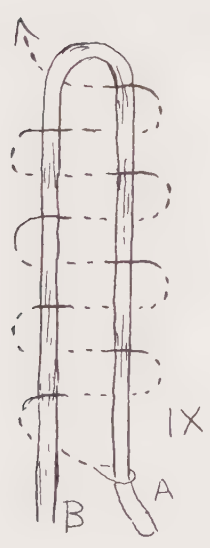
VI



VIII



VII



IX

Multiple  
Figure of Eight  
Figs. IX, X



X



# ANALYSIS of the Bends of the forms M & N



## CENTER



A One line lies on the other

B The two lines interlace



## ENDS

Ends  
not crossed in  
the Bight

1- Ends on same side  
of the Bight

2- Ends on different  
sides of Bight



Ends  
are crossed in  
the Bight

3- The Braiding is not  
regular

4- The Braiding is  
regular

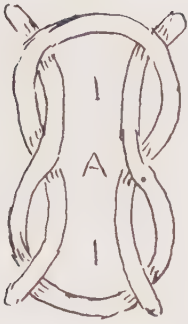


There are 20 possible combinations

1-A-1 1-A-2 1-A-3 1-A-4 2-A-2 2-A-3 2-A-4 3-A-3 3-A-4 4-A-4  
1-B-1 1-B-2 1-B-3 1-B-4 2-B-2 2-B-3 2-B-4 3-B-3 3-B-4 4-B-4

15

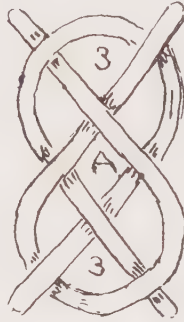
Among the twenty  
combinations  
there are eight knots



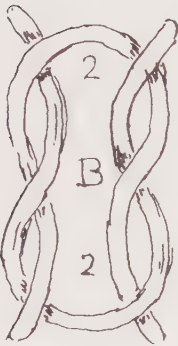
REEF KNOT



WEAVER'S KNOT



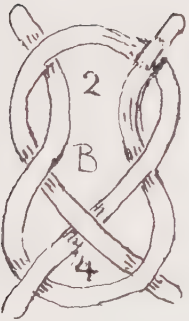
HALF GRANNY



GRANNY



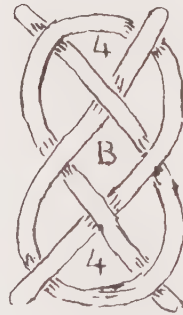
SINGLE CARRICK



HALF CARRICK

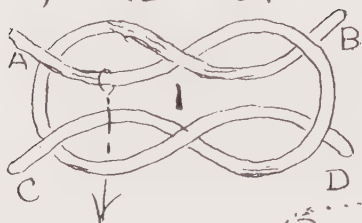


DOUBLE CARRICK (1)



DOUBLE CARRICK (2)

SQUARE KNOT



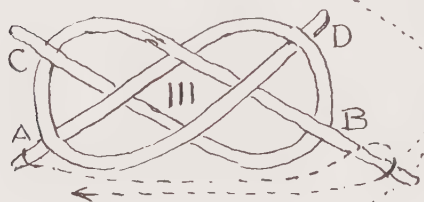
16

WEAVER'S KNOT

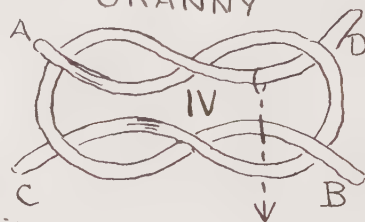


Beginning with the  
Square Knot  
Fig. I

HALF GRANNY



GRANNY

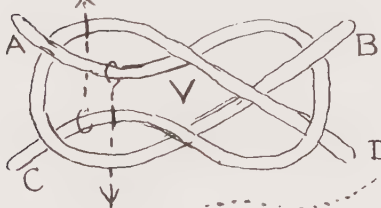


See page 30

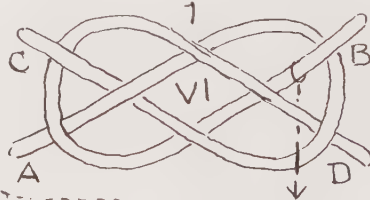
and ending with the  
Double Carrick

Fig. VIII

SINGLE CARRICK

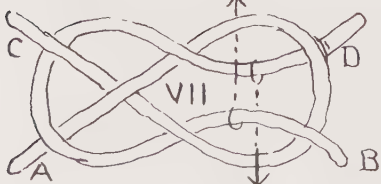


DOUBLE CARRICK



the eight Bends of the previous page  
pass, each into the next,  
by a slight change

HALF CARRICK



in the  
lay of the  
strands

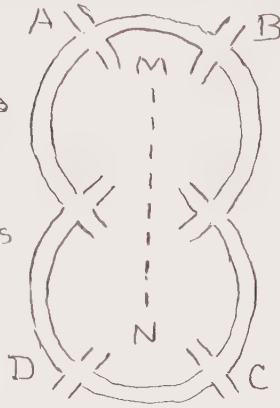
DOUBLE CARRICK





OBLIQUE BENDS

The strands  
of the eight bends  
are drawn  
together  
by pulling the ends  
A and D  
or  
B and C

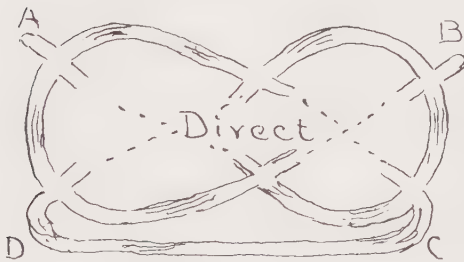


the strain  
being directly  
parallel  
with the axis  
M-N

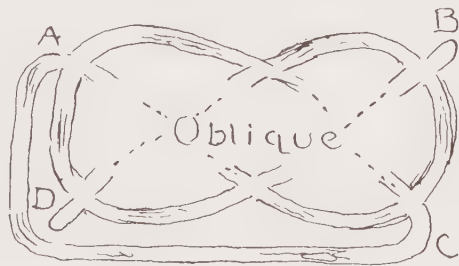
But the strain can be applied to A and C or to B and D  
in a direction oblique to the axis.

The Oblique Bends will be explained in later pages  
where each is an intermediate stage  
in the tying of a Loop peculiar to that Bend alone

The distinction between Direct and Oblique is better  
presented when the Bends are tied with the ends of  
a single line



The two ends  
A & B are on the same  
side of the knot

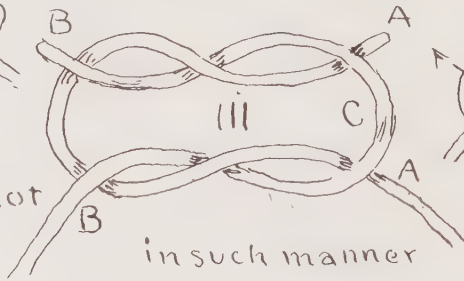


The two ends  
B & D are on opposite sides  
of the Knot

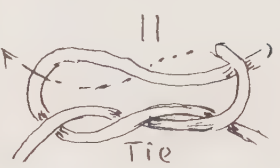
# SQUARE KNOT or REEF KNOT



Tie an  
Overhand Knot



in such manner  
that the parts A A  
lie on the same side of the  
bight C  
Fig. III



Tie  
another  
backwards  
Fig. II



IV

Fig. IV is the  
Single Bow Knot  
tied with  
the bight of one end

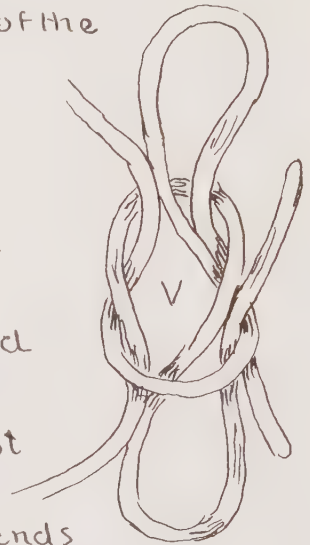
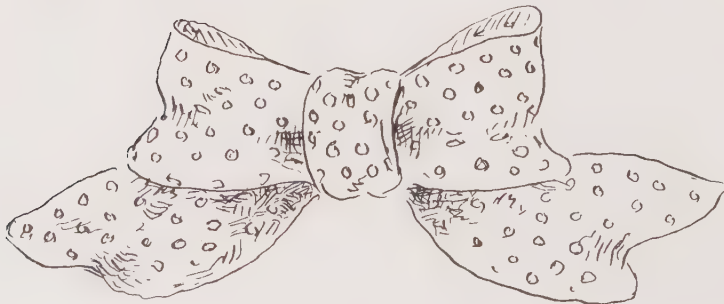


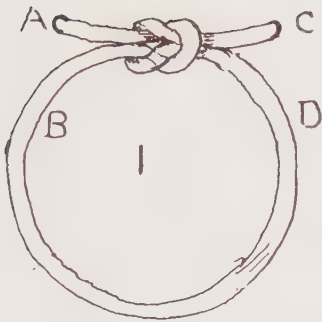
Fig V is the  
Double Bow Knot  
tied with  
the bight of both ends



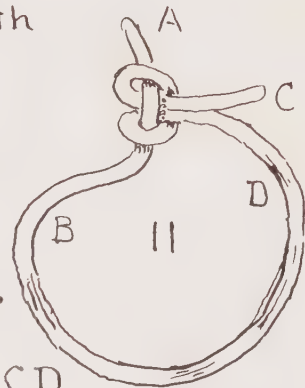
# SQUARE KNOT AND LARK'S HEAD

Fig. I

is a Loop tied with  
a  
Square Knot.



If the part AB  
is  
straightened  
the knot becomes  
a Noose



tied by a Lark's Head CD  
around

the part A-B, Fig. II

Conversely  
A

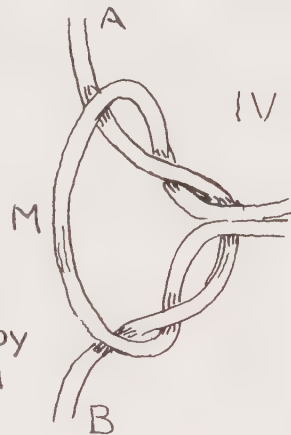
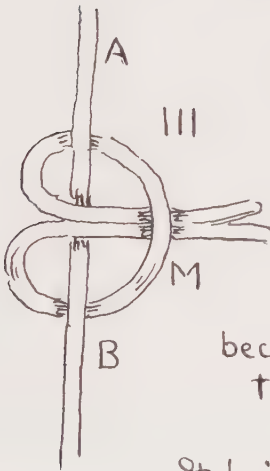
Lark's Head  
around

a line AB, Fig III

becomes a Square Knot by  
turning the bight M  
around AB

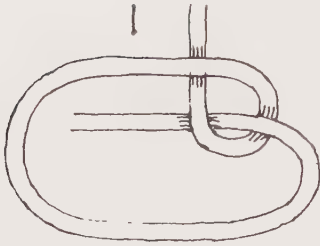
& bringing the ends A & B  
together

see page 5, Fig I

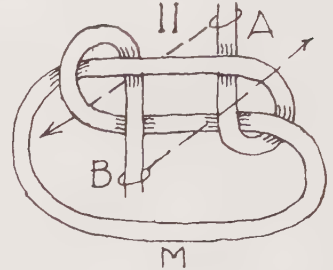


To untie a Square Knot, straighten one of the 2 strands  
Grasp the resulting Lark's Head  
and strip it quickly from the straight strand

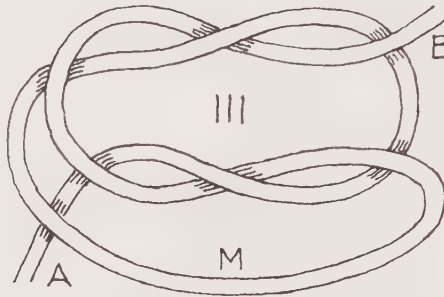
## OBLIQUE SQUARE KNOT



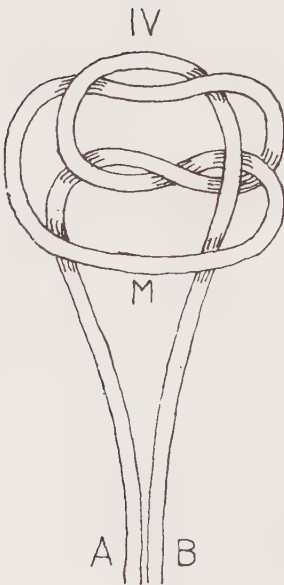
In Fig II pass A to left under, and B to right over the strands



The Oblique square knot also known as the Thief Knot

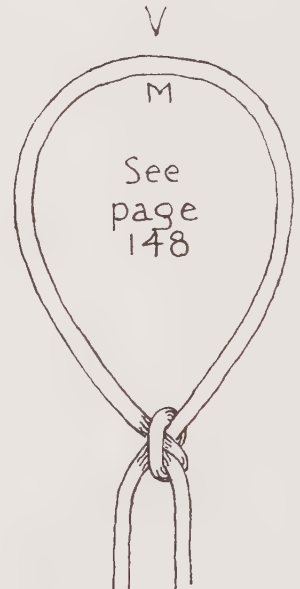


Under strain, however slight, it slips apart.



See page 5

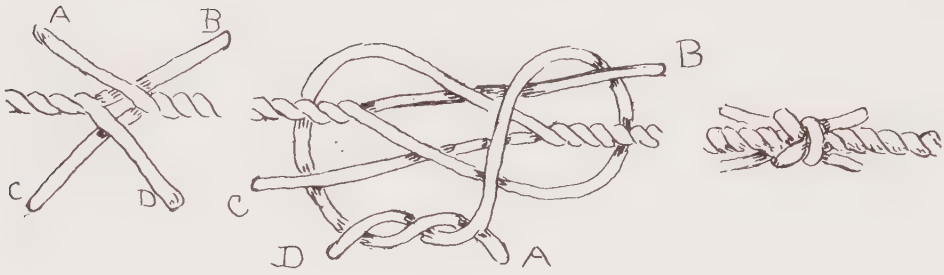
But in Fig. III bring the ends A & B together, Fig IV. then with A & B in one hand and the part M in the other hand the knot becomes a reliable Japanese Loop.



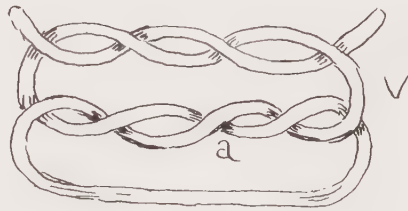
See page 148

## MARLINE - OR ROPE YARN KNOT

Marline is laid with  
two strands



The Surgeons' Knot is a  
Square Knot  
of which  
th first part, Fig. V-a,  
is a  
double Overhand Knot

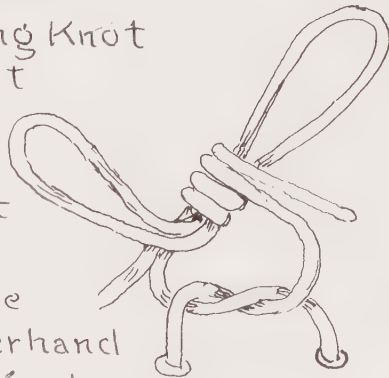


The Shoe String Knot

A Bow Knot

of which  
the  
second part  
is a

double  
Overhand  
Knot





Under several names as  
Weaver's Knot - Sheet Bend - Bowline & others, is  
a combination of a Loop AB with  
a Half Hitch CD

Fig. I

is the Direct form of the knot,  
the two ends (both A and C)  
being on the same side of the knot

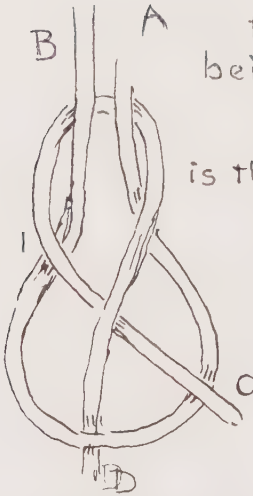


Fig. II

is the Oblique form of the knot,  
the two ends A & C being  
on opposite sides

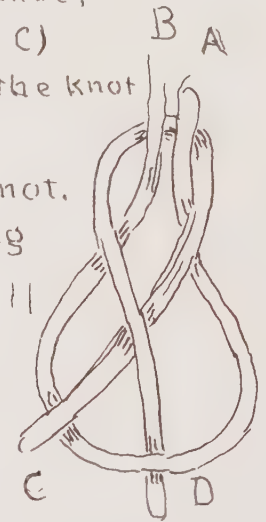


Fig. III

is the Oblique form  
tied with one line.

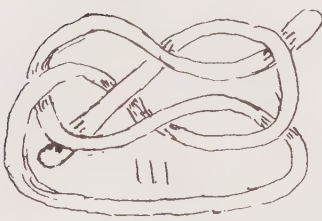
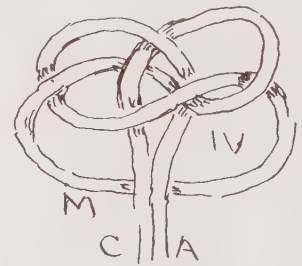


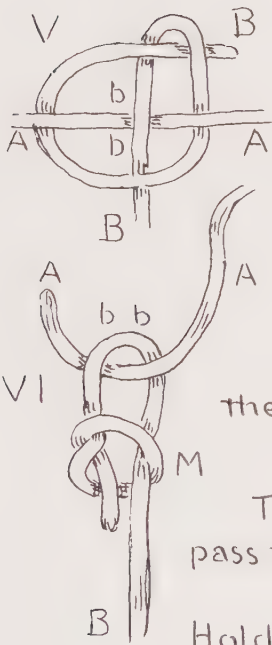
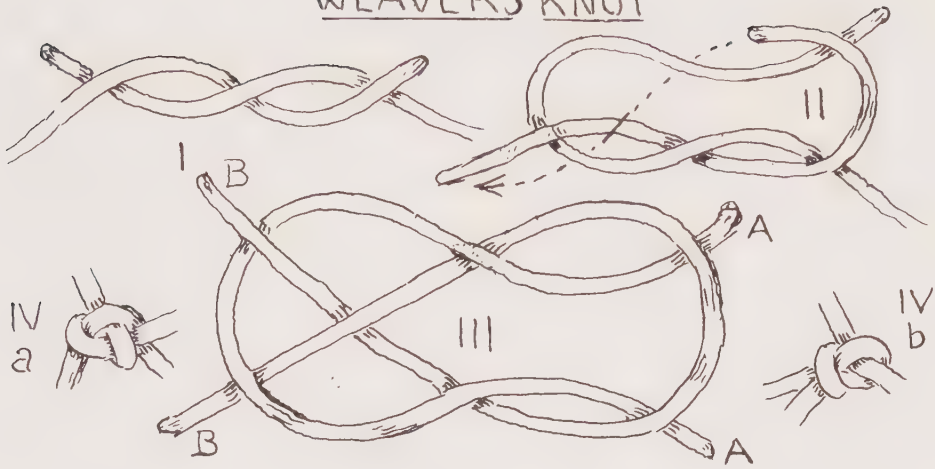
Fig. IV

A & C are brought  
together.



With  
C A in one hand &  
M in the other

The Knot  
becomes a loop .

WEAVER'S KNOTWEAVER'S KNOTand SLIP NOOSE

Straighten the line A A Fig III  
to obtain Fig. V (Crabber's Knot, p 27)

With A A pull b b until the knot  
becomes a Noose

Fig. VI

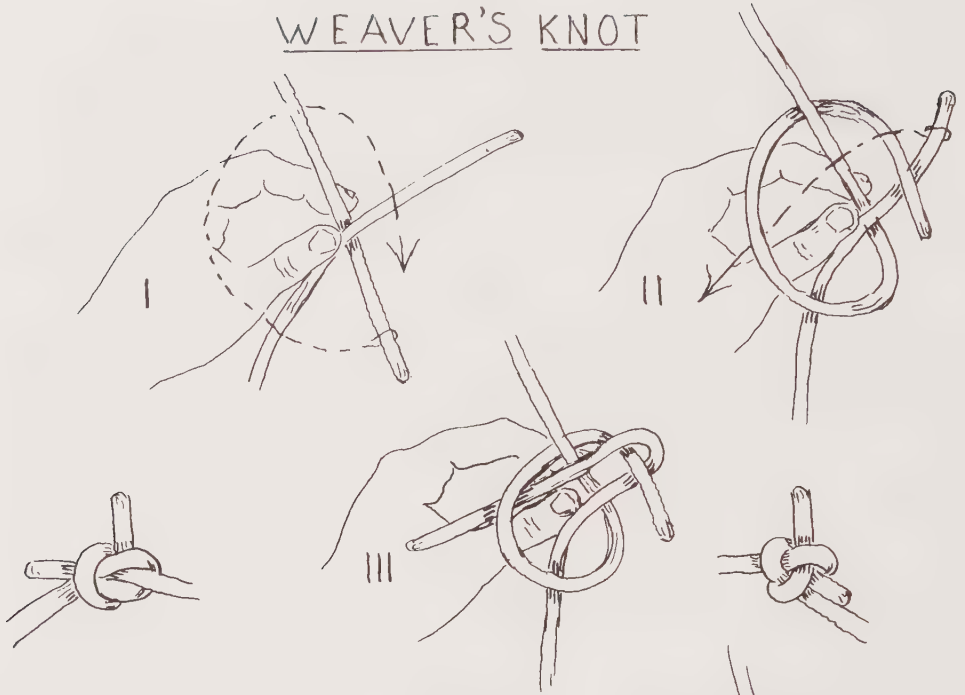
Therefore  
the Weaver's Knot may be tied  
as follows

Tie a Noose with one line,  
pass the other line through its eye

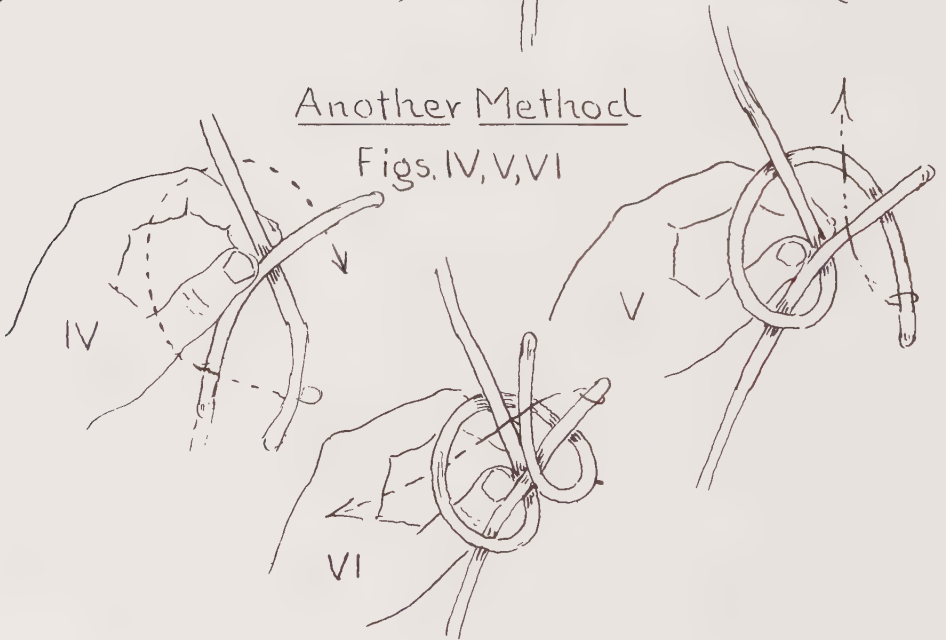
Fig. VI

Hold A A together, pull B and slip  
the collar, M, up onto the loop formed by A A, Fig. VII



WEAVER'S KNOTAnother Method

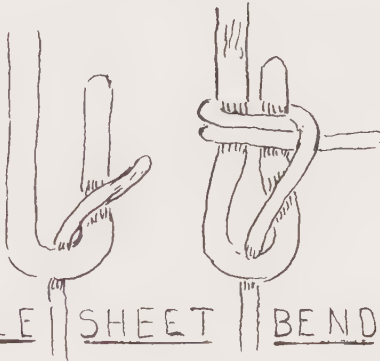
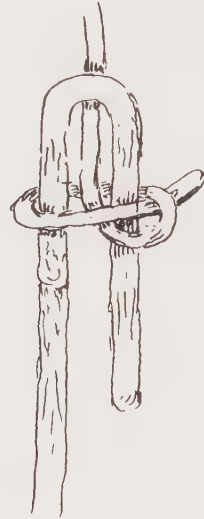
Figs. IV, V, VI



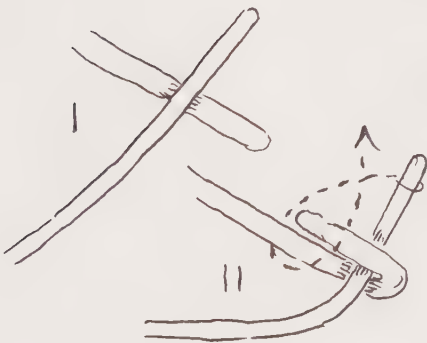
The combination of a Loop with a Half Hitch  
Is a reliable Knot  
for joining two lines of  
unequal size



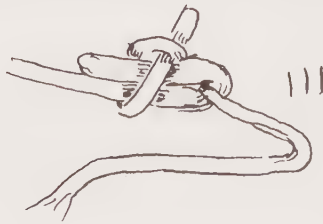
HEAVING LINE  
BEND



DOUBLE SHEET BEND

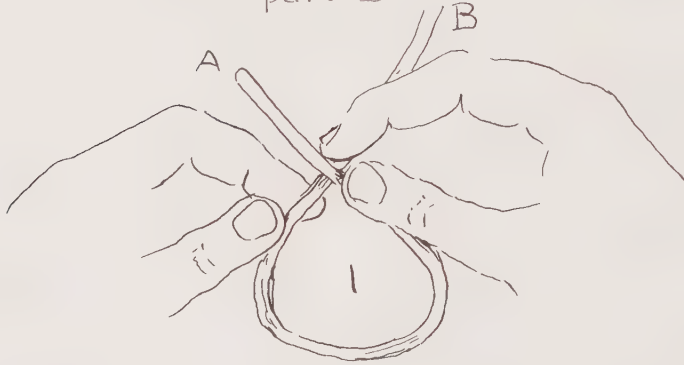


WHIP LASH KNOT

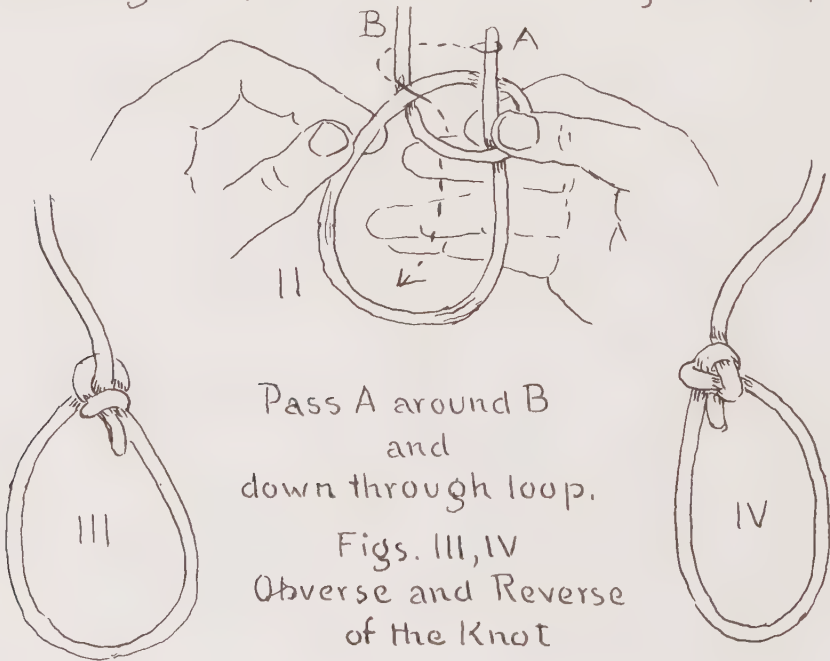


BOWLINE

Lay the end A on the standing part B

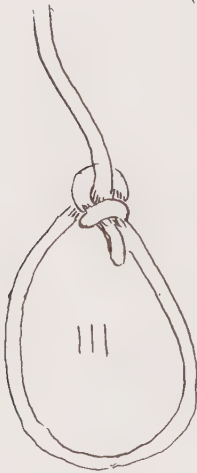


Turn the palm of the right hand up, forming a loop with the end A through the loop



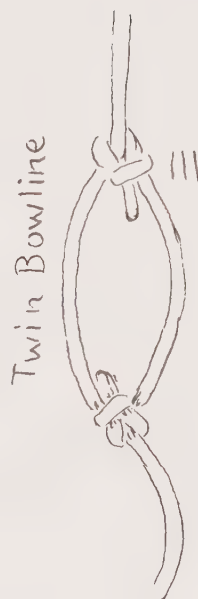
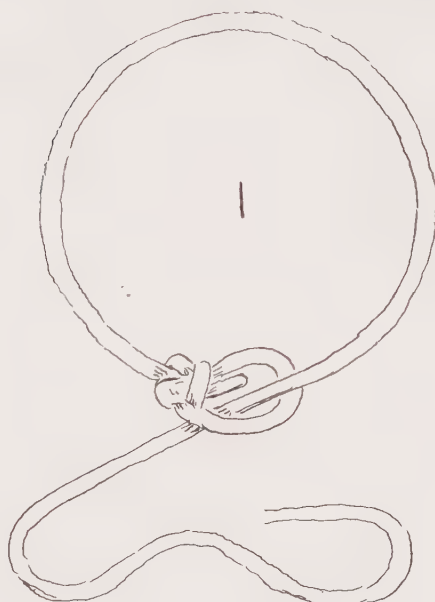
Pass A around B  
and  
down through loop.

Figs. III, IV  
Obverse and Reverse  
of the Knot





27  
RUNNING BOWLINE



Crabber's Knot

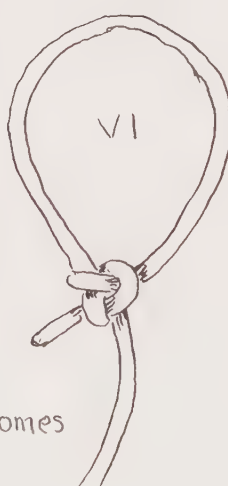
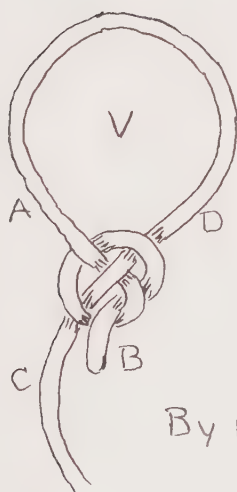


Fig. V is a Noose on the  
 running Line CD  
 By pulling A & B the Noose becomes  
 a Loop Fig VI

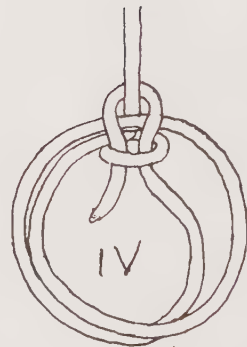
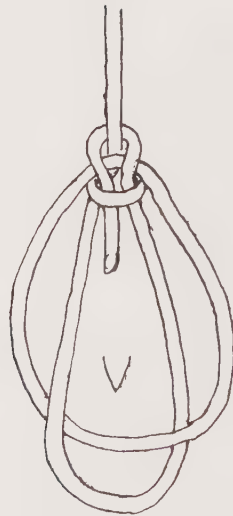
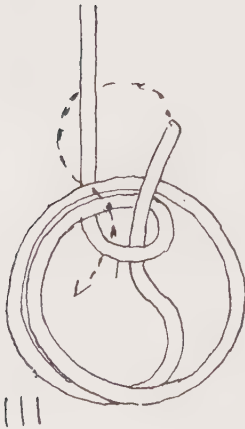
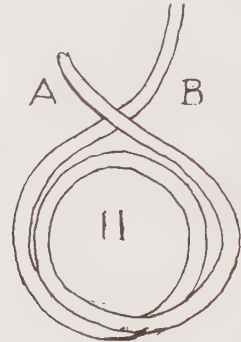
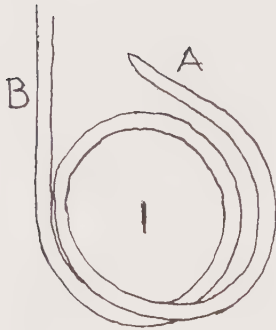
# PORTUGUESE BOWLINE

Chaise de Calfat

Caulker's Chair

Fig. I - is a double Loop

Fig. II - where end A crosses the part B  
tie a Bowline (III-IV)  
around  
the two lines

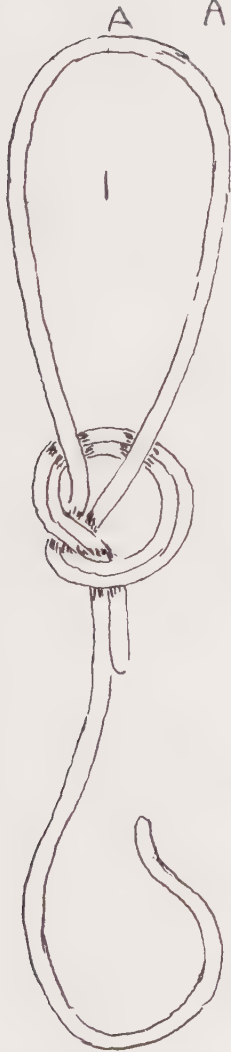


the result  
is an adjustable  
Double Loop

BOWLINE - ON-BIGHT

This Knot  
may be tied with the bight  
on any part of the line

A short length of a long rope  
may be used without  
cutting it



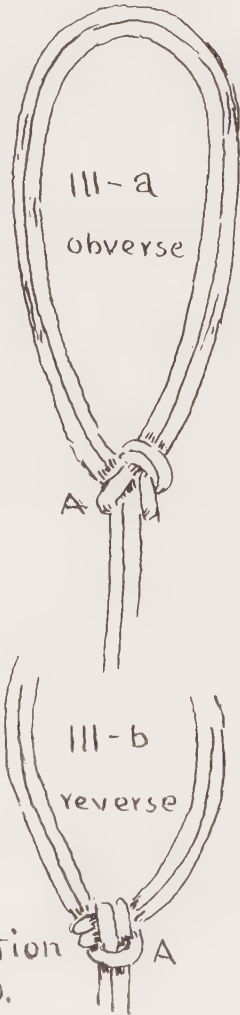
With the Loop A  
tie an Overhand Knot  
Fig. I

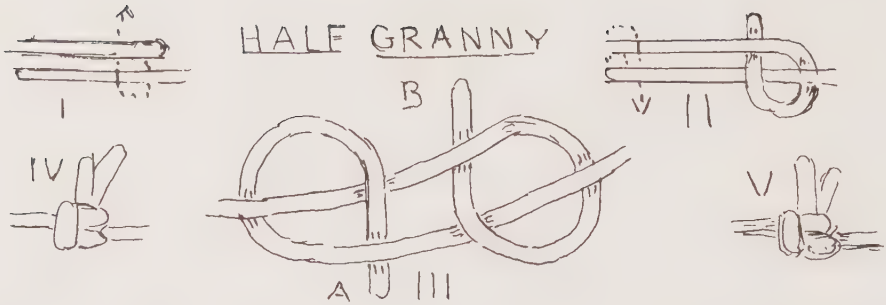
Pass the Loop A  
back under the Knot  
Fig. II



With the strands at B  
Fig. II

pull the loop A into the position  
shown in Figs. III-(a & b).





This knot, when pulled taut, is peculiar  
Figs. IV, V

The two ends lie side by side  
The two faces; both obverse and reverse,  
are alike.

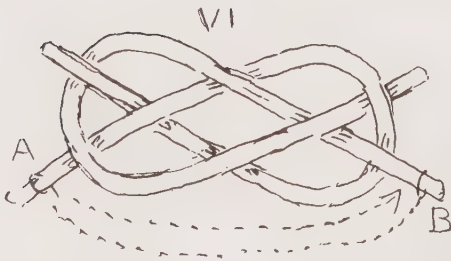


Fig. VI  
is the form of the knot  
shown on pages 15-16.

When pulled taut,  
it takes the form shown  
in Fig. IV (or V)

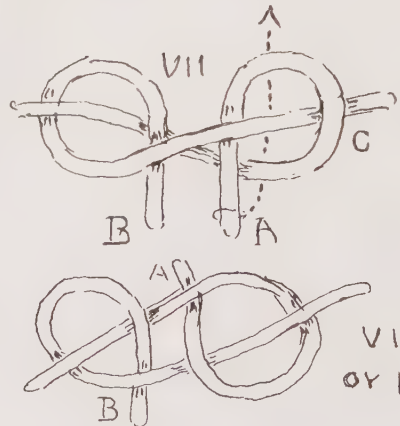
In Fig. VI interchange A & B  
to form VII

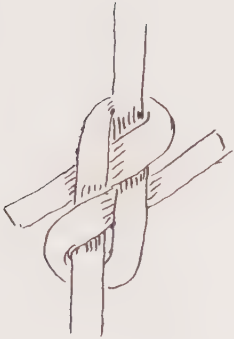
In Fig. VII turn the right  
hand half of the knot  
over to form Fig. VIII

(or Fig. III above)

III, VI & VII, when taut are  
alike and are forms of the

HALF GRANNY





THE GRASS KNOT  
is the Half Granny as a  
bend for straps, straw,  
grass or  
such flat material

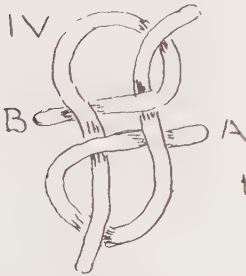


THE REEVING LINE BEND

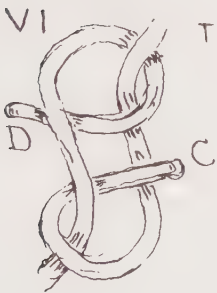


is a form of the Half Granny

NOTE



In the Half Granny  
Fig. IV  
by interchanging  
the ends A & B  
the knot passes into  
the Oblique Granny  
Fig. V

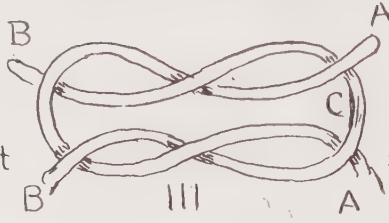


The Half Granny must not  
be confused with Fig. VI,  
which slips and which,  
by interchanging  
C and D,  
passes into the  
Thief (Oblique Reef) Knot Fig. VII



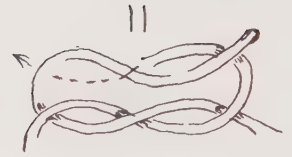
THE GRANNY

Tie an  
Overhand Knot  
Fig I



in such manner that  
the ends A A

lie on opposite sides of the bight C



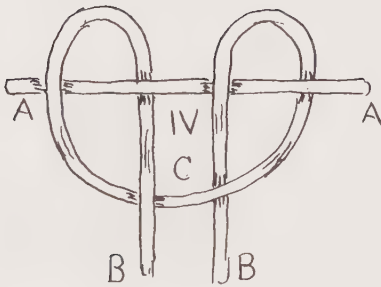
Tie  
another backwards  
Fig II

GRANNY

and

CLOVE HITCH

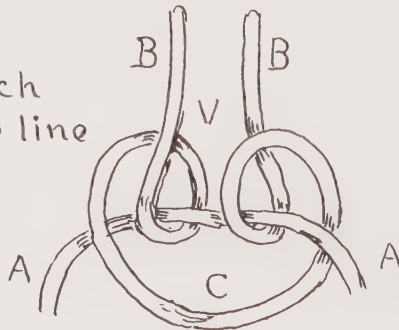
See page 5, Fig. 11



Straighten  
the line A A, Fig III  
The parts B-B become a  
Clove Hitch  
around the line A A

A Granny, therefore, may be tied as follows.

Tie a  
Clove Hitch  
around the line  
A A  
Fig. IV



Turn the  
ends B B up  
around A  
and  
pull B B and C  
Fig. V

## OBLIQUE GRANNY

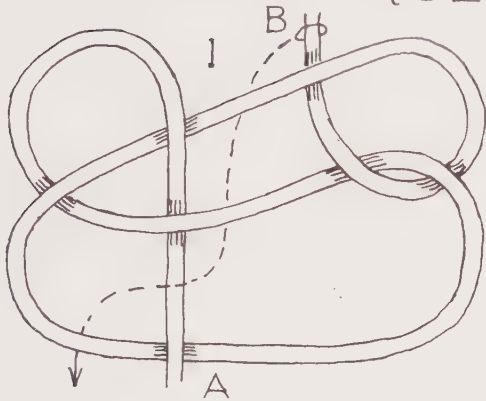
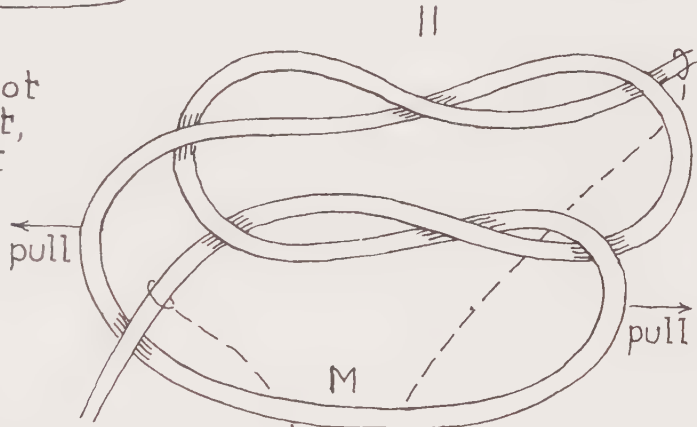


Fig I is the Half Granny.  
Pass the end B down  
under two strands and  
over the strand A.  
The knot becomes

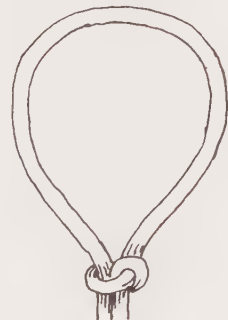
Fig II  
The Oblique Granny

When this knot  
is pulled taut,  
it slips apart  
and will not  
hold.



But, by bringing the ends  
A & B together Fig. II,  
by holding A & B in one  
hand and the part M  
in the other, Fig II  
becomes a reliable Loop.

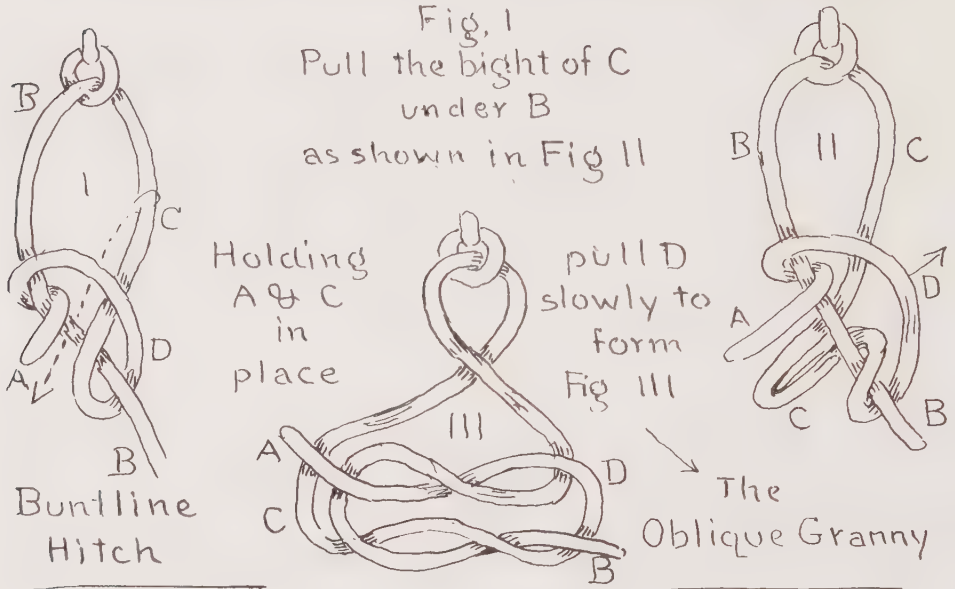
See page 5



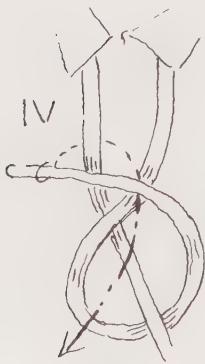
The Japanese method of tying  
this Loop is shown on page 148.



# BUNTLINE HITCH AND OBLIQUE GRANNY

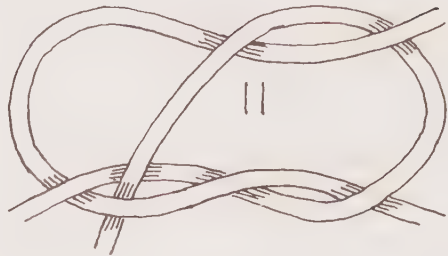
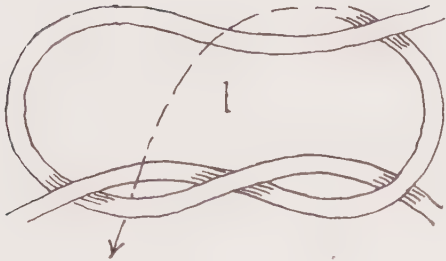


## FOUR-IN-HAND TIE



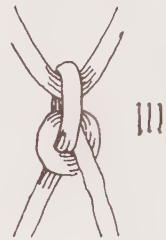
Buntline Hitch

## SINGLE CARRICK BEND



The two bights that form the finished knot, lie on planes perpendicular to each other.

The lay of the strands resembles that of the four strand Round Braid.



Single Carrick



Fig. IV

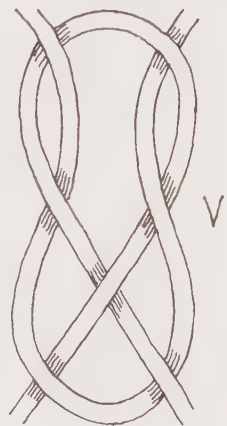
Single Carrick

and Fig. V

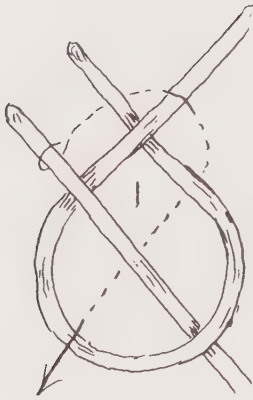
Half Carrick

are very much alike. They differ in the braiding of their strands, alternately over and under in Fig V very irregular in Fig IV

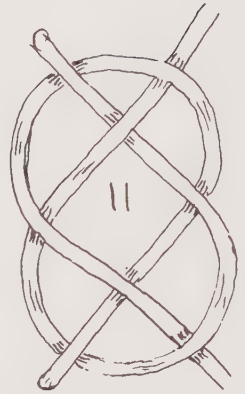
Half Carrick



# DOUBLE CARRICK No. 1



This Knot  
differs from  
the Double Carrick No 2  
by the  
irregular braiding  
of the strands



III



Fig.V begins with an  
Overhand Knot Fig. IV

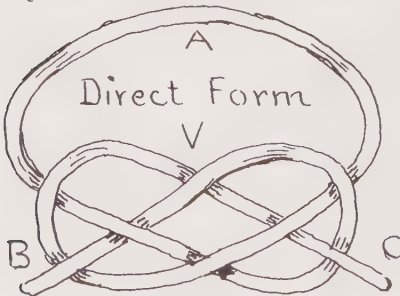
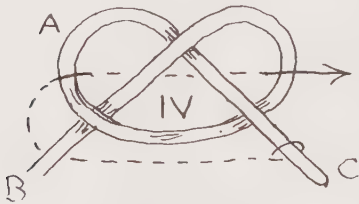
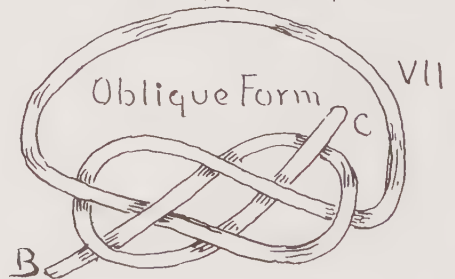
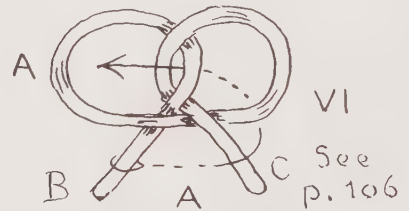
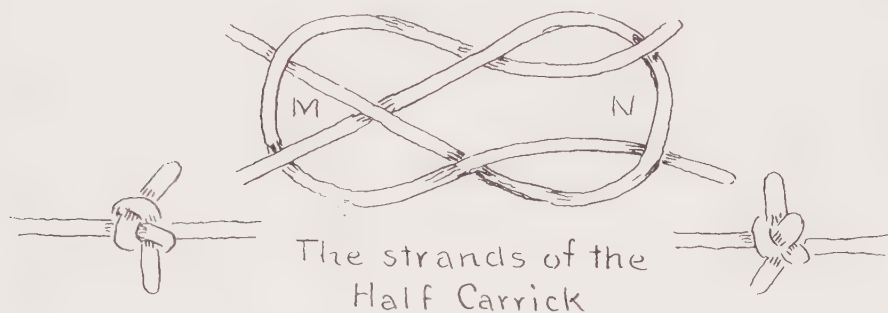


Fig.VII begins with the  
Miller's Knot Fig. VI



HALF CARRICK

This is Nameless-2 of the first edition

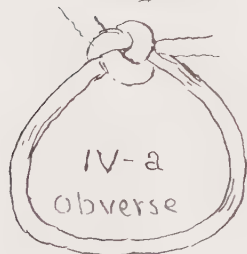
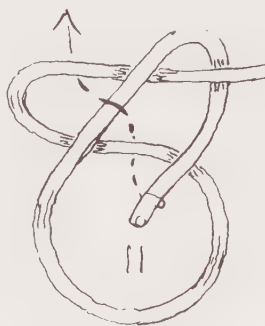
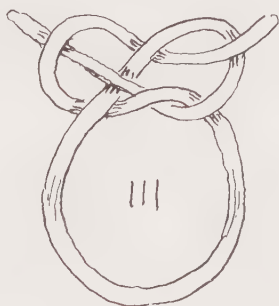
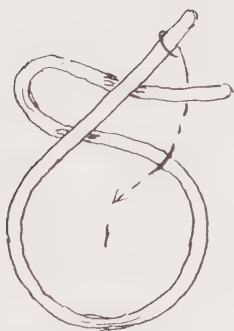


The strands of the  
Half Carrick

in one half (M) of the knot, have the lay characteristic  
of the Double Carrick-No. 2,

The strands of the other half (N) correspond with the  
lay of the Granny.

So far as I know  
this knot  
is not in use



IV-a  
obverse

IV-b  
reverse

OBLIQUE HALF CARRICK

In Fig II  
bring the ends  
A & B  
together

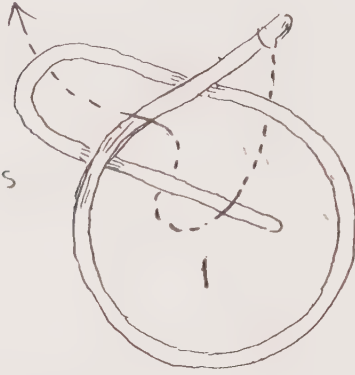


Fig III  
Hold A & B  
in one hand and  
pull M

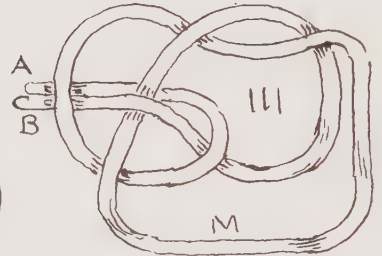
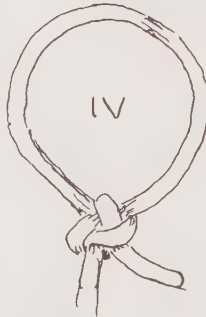
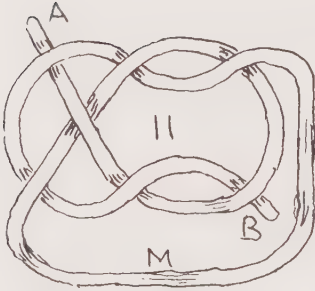
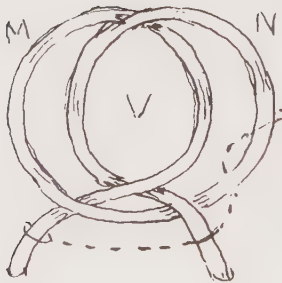
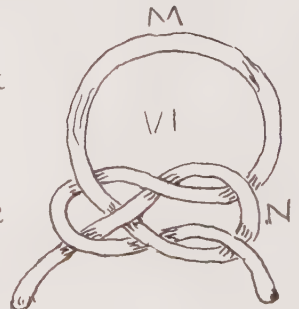
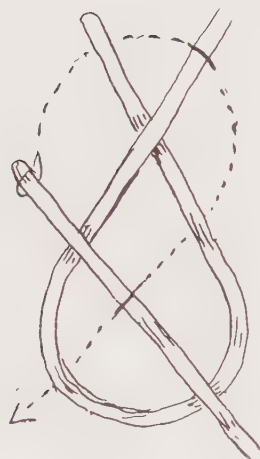
HALF CARRICK and MILLER'S KNOT

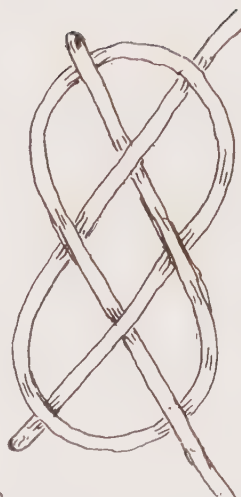
Fig. V,  
the Miller's Knot  
(pages 12, 106)  
can pass  
by a slight change  
into Fig. VI,  
the Half Carrick



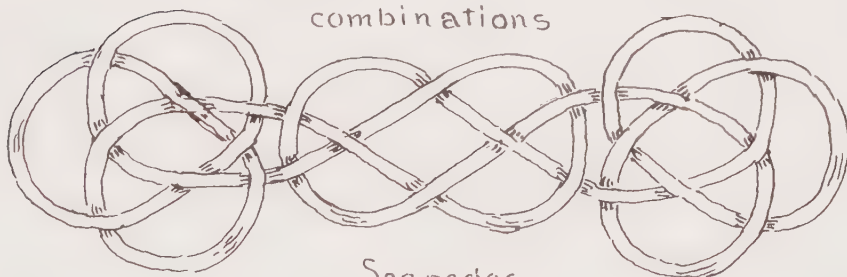
# DOUBLE CARRICK No. 2



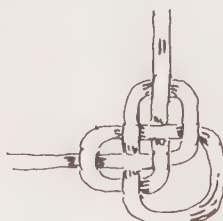
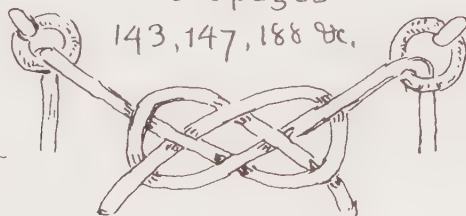
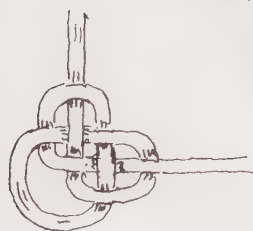
This knot  
differs from the  
Double Carrick No 1  
by the  
regular braiding  
of its strands



The  
symmetry & beauty  
of this knot is such that  
it often appears in ornamental  
combinations



See pages  
143, 147, 188 &c.



# OBLIQUE DOUBLE CARRICK No. 2

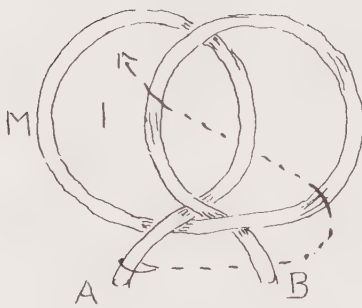


Fig. I  
the two  
Half  
Hitches of  
the  
Clove Hitch

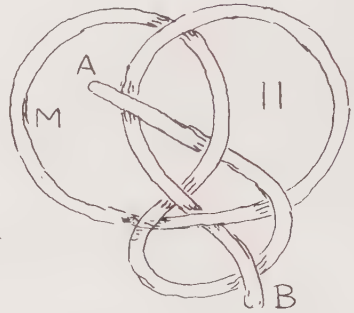


Fig. III  
the  
Oblique  
Double Carrick  
No. 2

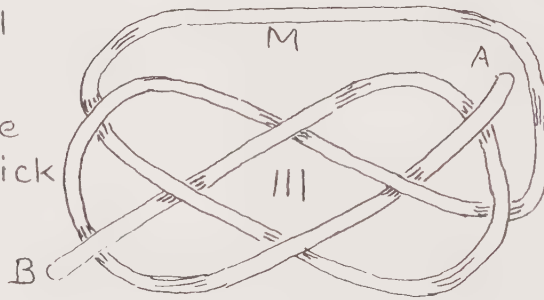
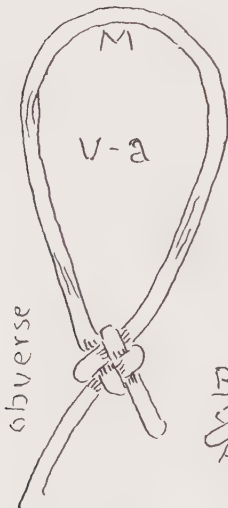
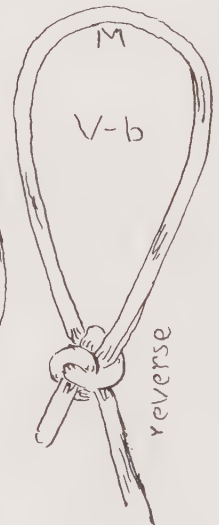
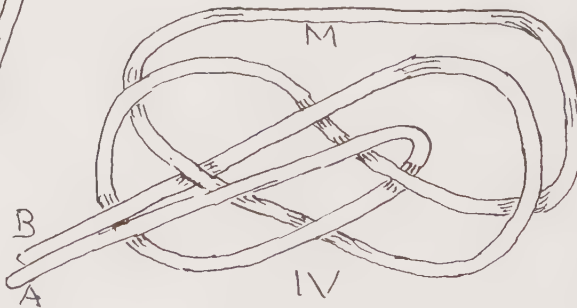


Fig. IV  
the ends  
A & B  
are brought  
together



Hold A and B  
and pull the standing part M



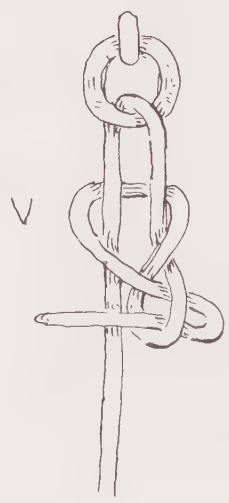
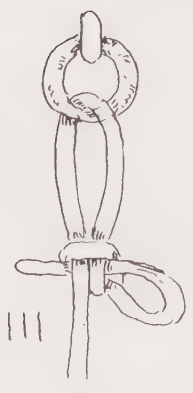
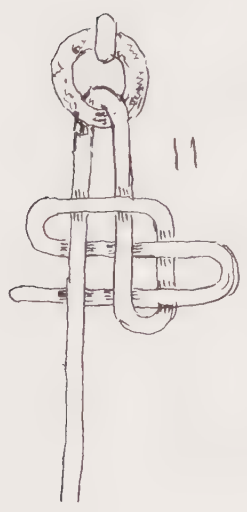
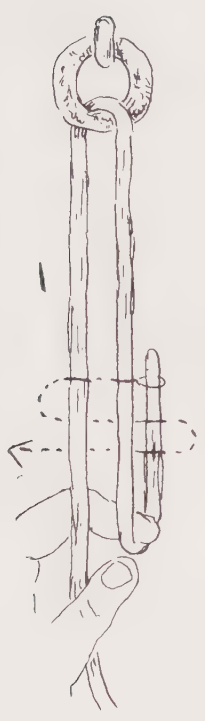
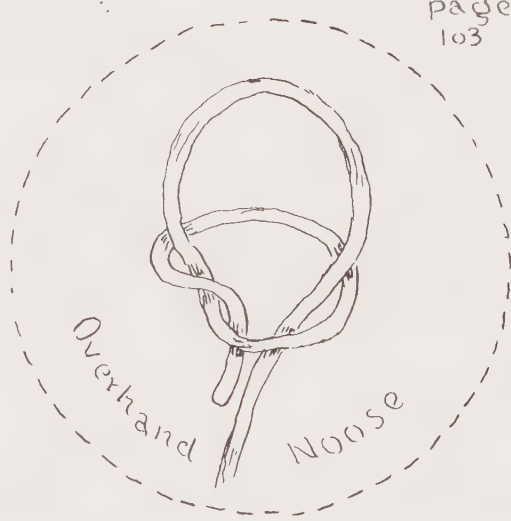


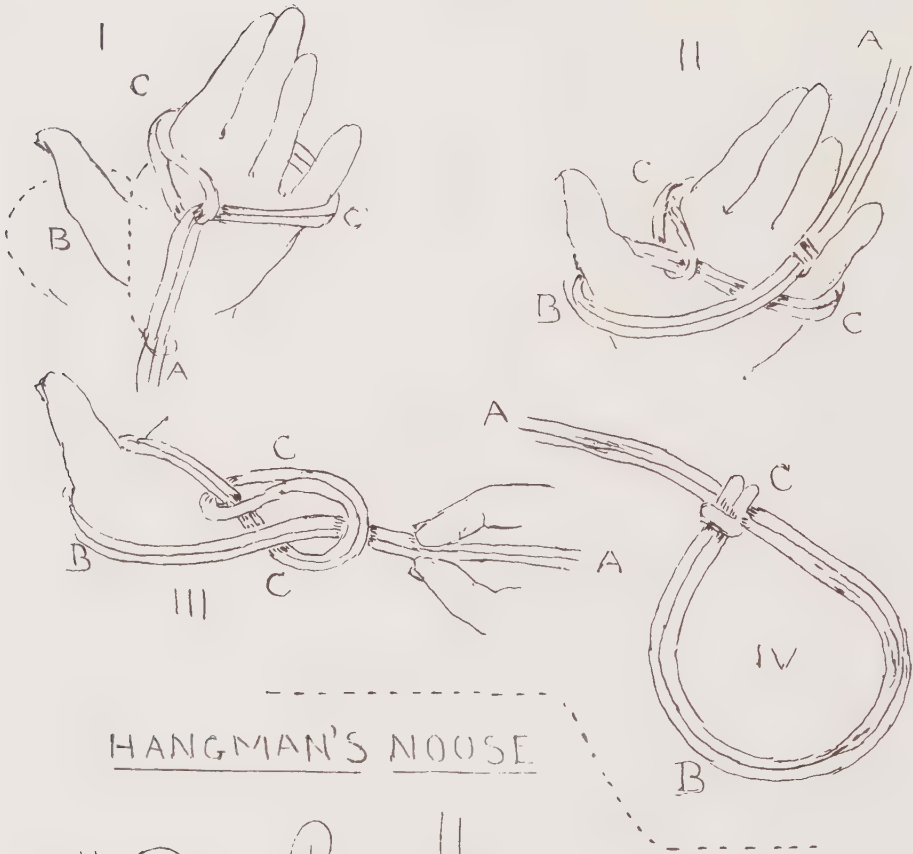
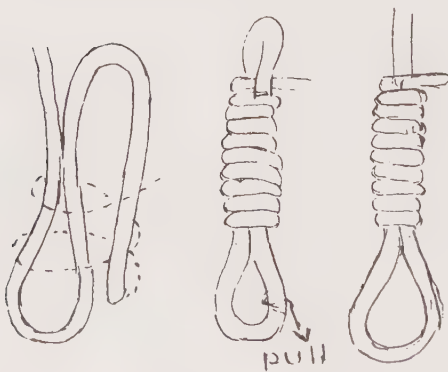
NOOSE

Halter  
Tie  
Figs. I, II, III

Figure of 8  
Tie  
Figs. IV, V, VI

See  
page  
103

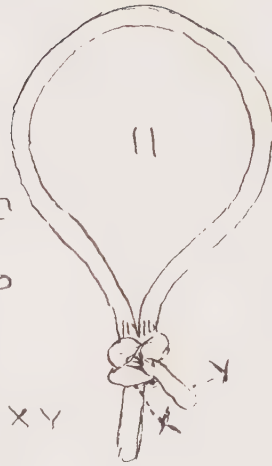
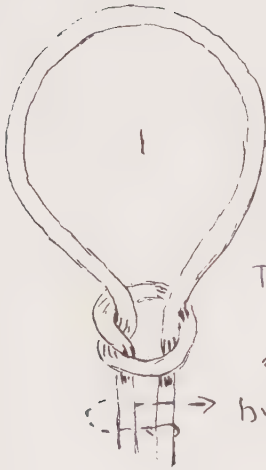


DOUBLE NOOSEHANGMAN'S NOOSE

The  
Hangman's Noose  
is tied with  
eight or nine  
turns  
of the rope

LOOP

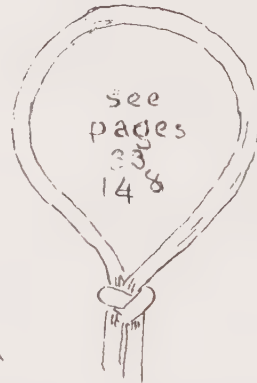
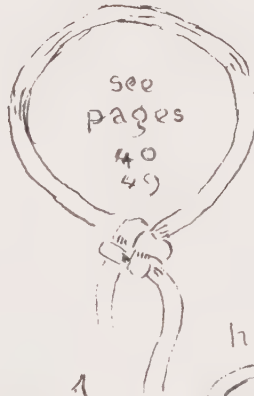
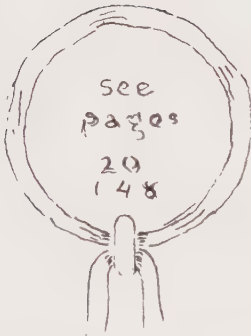
Noose & Half Hitch



The size of the loop  
may be changed  
after the knot is tied

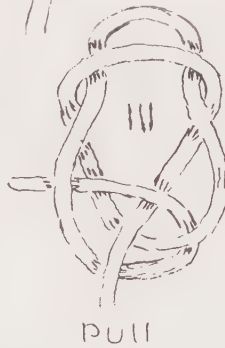
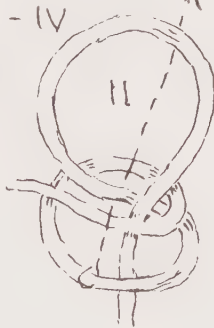
by manipulating xy

Japanese Loops

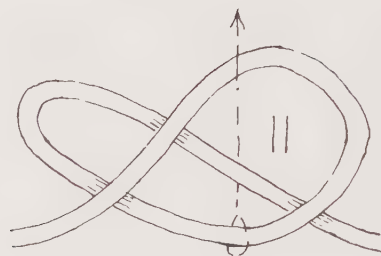


Angler's Loop

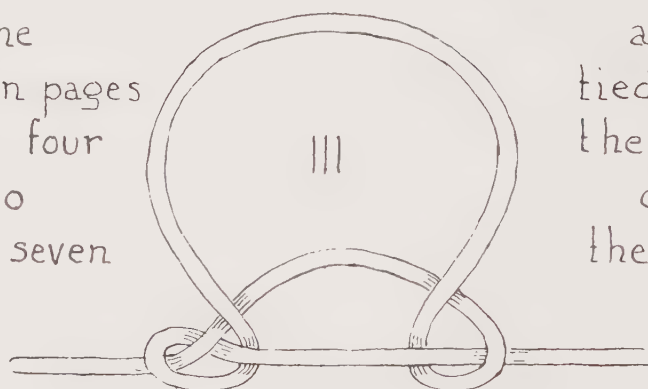
I-IV



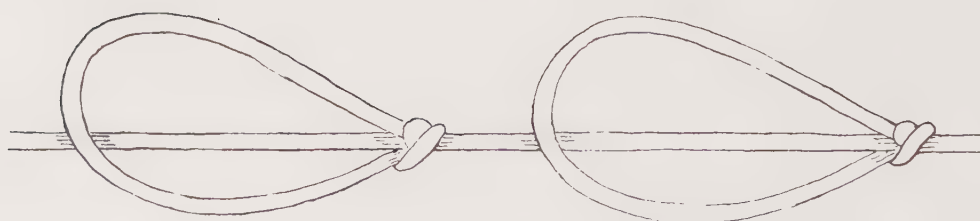
44  
ARTILLERY  
or  
MAN-HARNESS  
KNOT



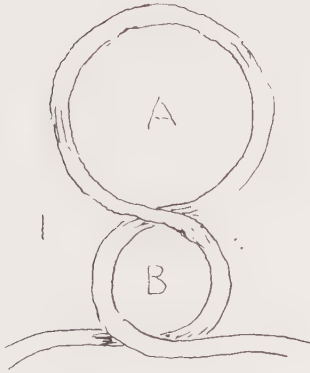
The  
Knots on pages  
Forty four  
to  
Forty seven



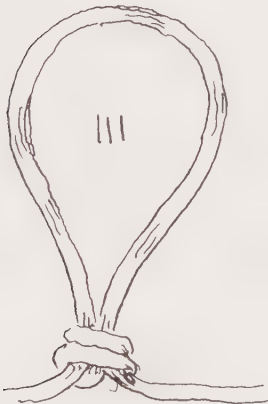
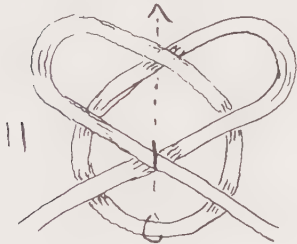
are  
tied with  
the bight  
of  
the line



# LINEMAN'S KNOT



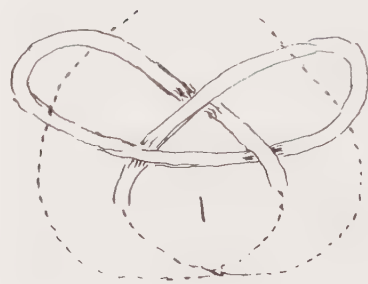
Pass A  
down behind B



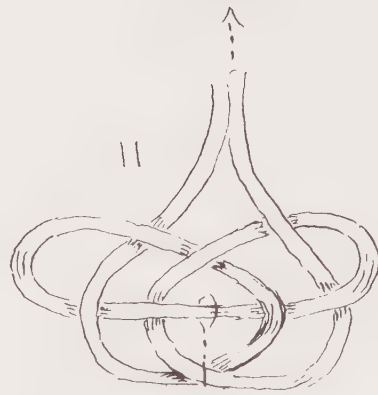
# LOOP

beginning with an  
Overhand Knot

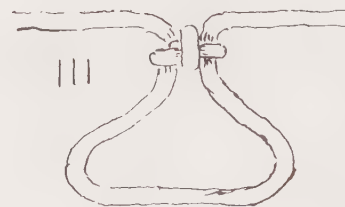
Fig. 1

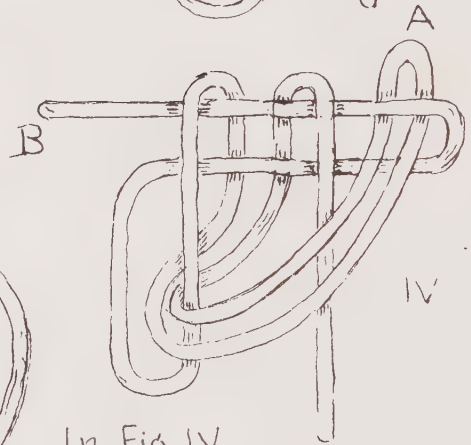
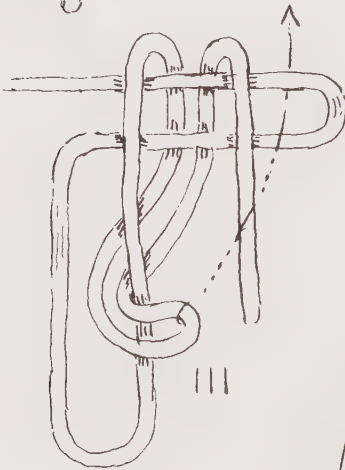
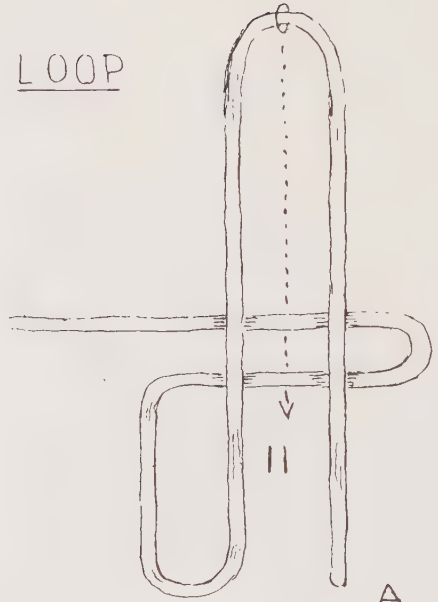
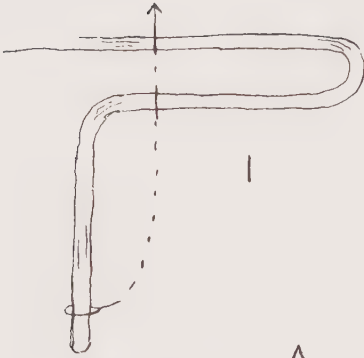


Pull

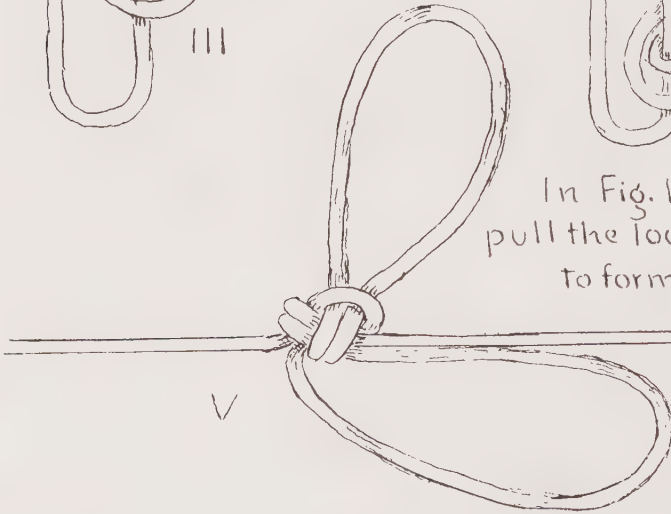


Pull



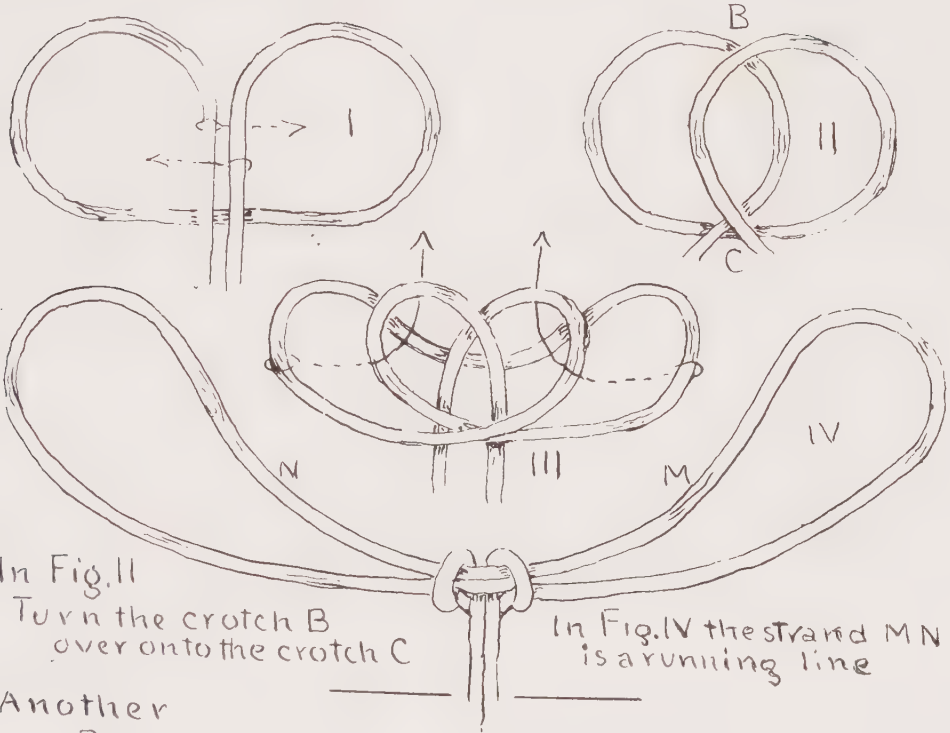
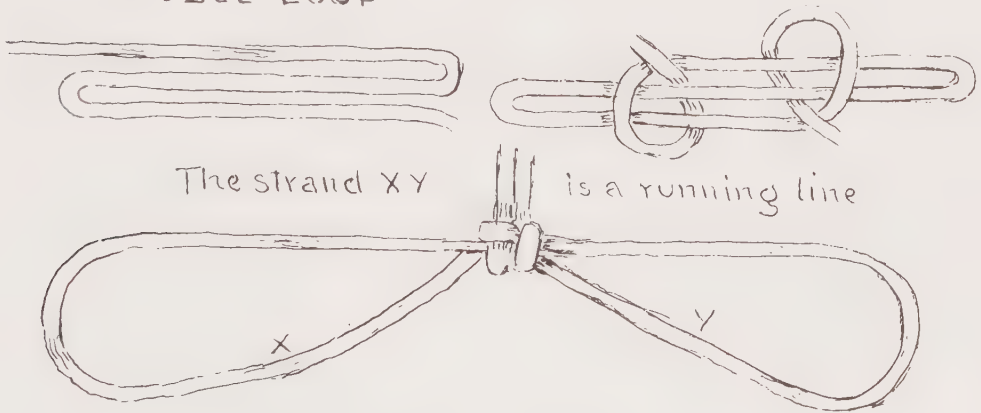
DOUBLE LOOP

In Fig. IV,  
pull the loop A & the end B  
to form Fig. V

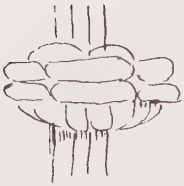


DOUBLE LOOPS

## SPANISH BOWLINE

Another  
DOUBLE LOOP



STOPPER KNOTS

49  
STOPPER KNOT  
of two  
Strands

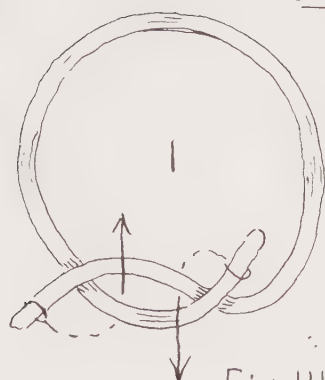


Fig II  
 Pass A under B  
 to form  
 Fig. III - The Oblique Granny

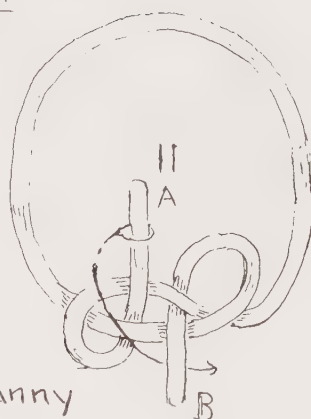
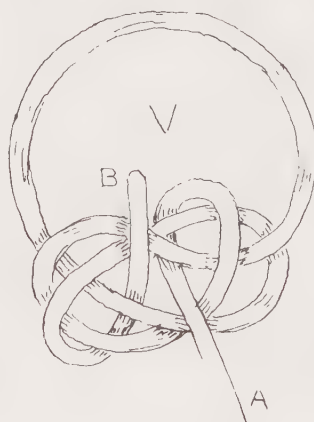
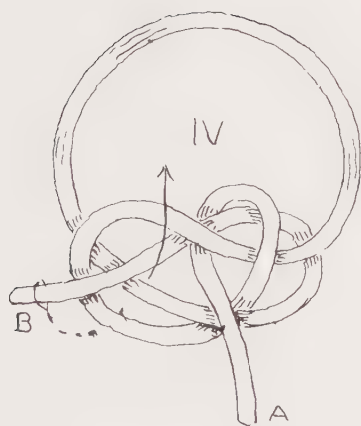
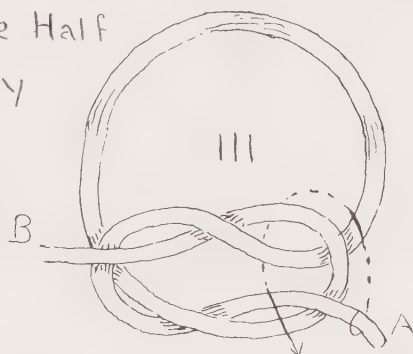
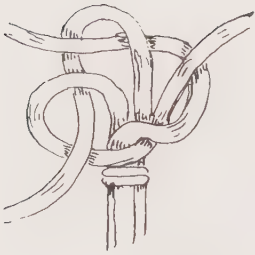
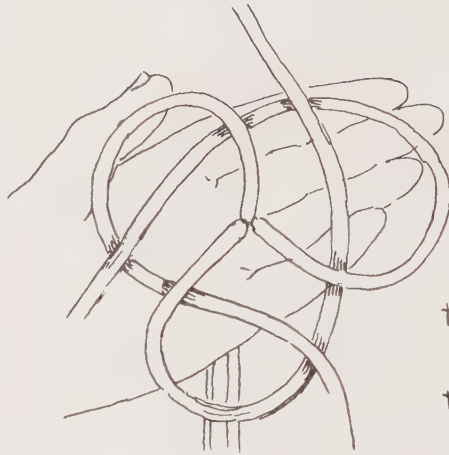


Fig. II is the Half  
 Granny

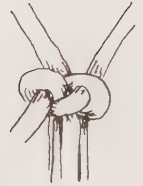
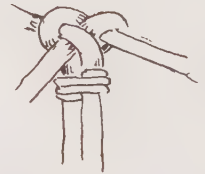
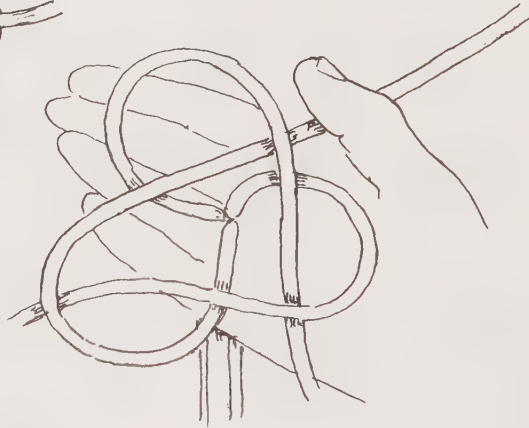
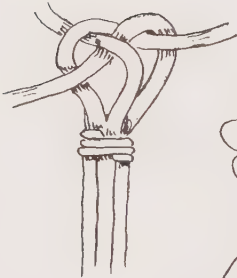


WALL KNOT

with 3 cords  
the Wall may be  
tied  
to the right  
or  
to the left

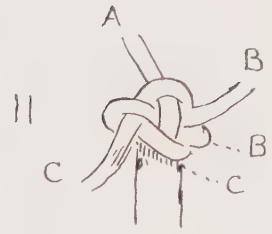


With a  
rope  
the Wall must  
follow  
the lay of the  
strands

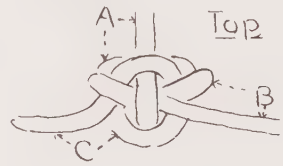
CROWN KNOT

# MAN-ROPE KNOT

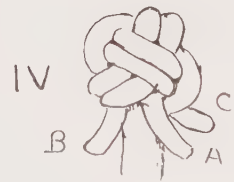
A  
combination  
of the  
Wall & Crown  
with the strands doubled



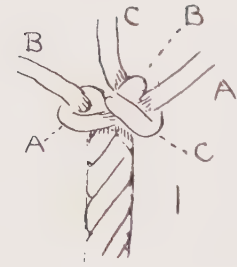
Single  
Wall & Crown



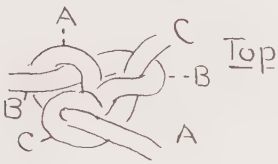
The Crown  
Fig. II  
brings each end  
against  
its own part



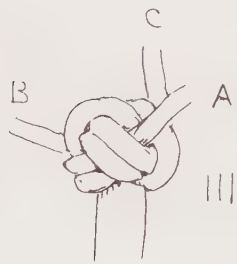
Double  
Wall & Crown



Single Wall



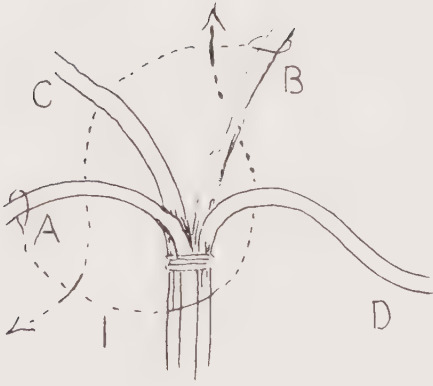
In doubling  
each strand follows  
its own lay



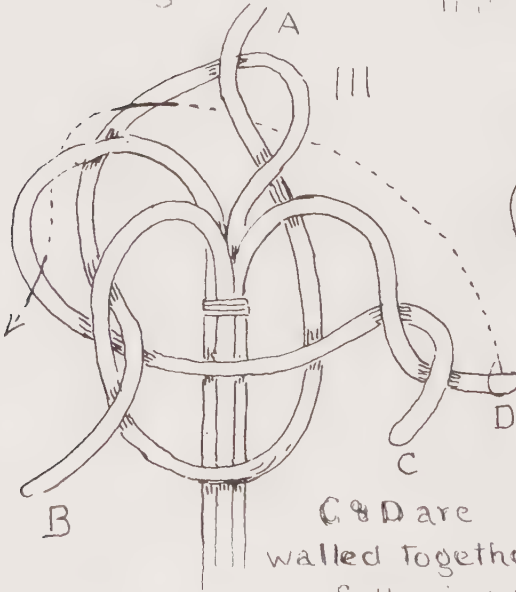
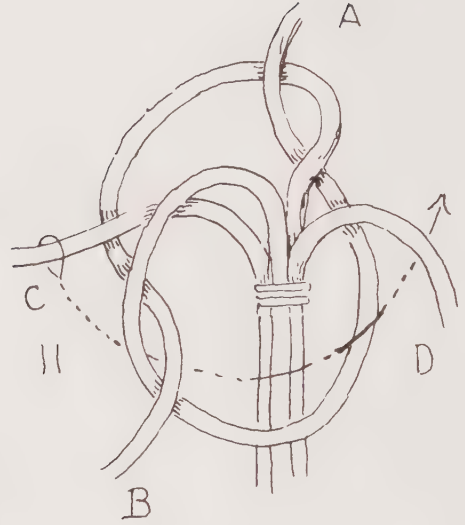
Double Wall  
&  
Single Crown



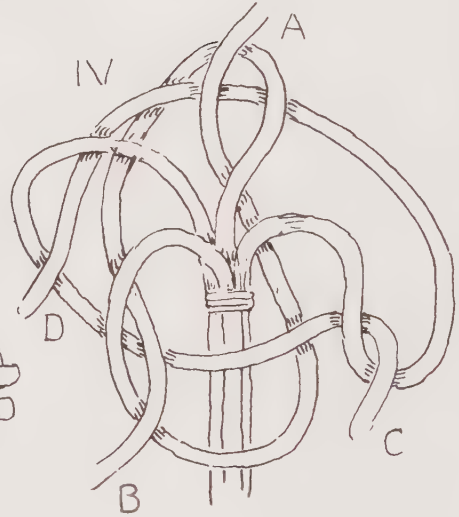
The 3 ends ABC  
Fig III  
are passed down  
through the center of  
the knot  
Fig. IV  
and are cut off

TWIN WALL KNOT

Wall A+B together  
around C+D  
Fig I, II



C & D are  
walled together  
Following the dotted lines



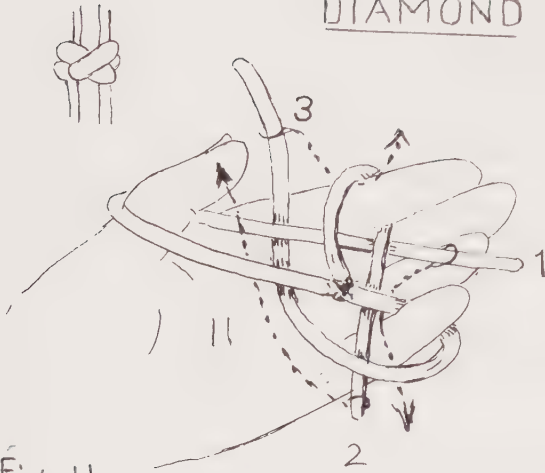
DIAMOND KNOT

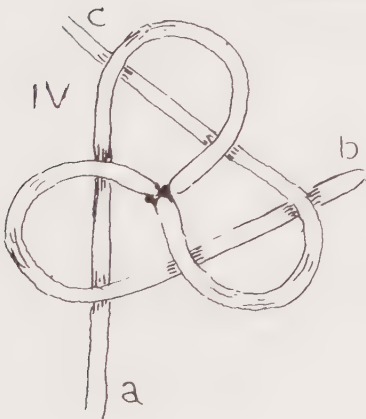
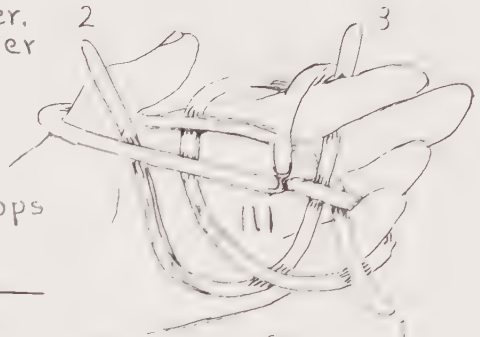
Fig. II

Pass 1 around the thumb,  
2 around the forefinger,  
3 around the little finger  
forming 3 loops

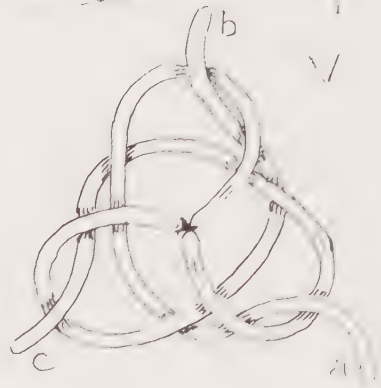


Fig. III

Pass the ends through the loops  
in the order shown

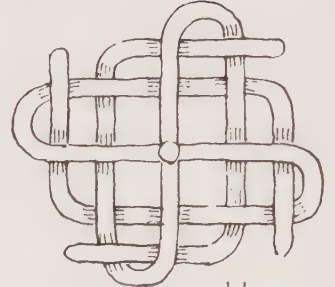
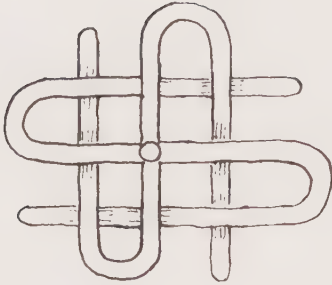


or



# DIAMOND KNOT

of  
Four  
Strands

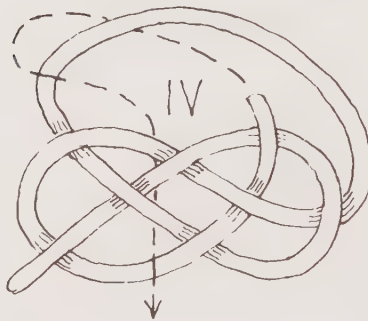


II

## DIAMOND

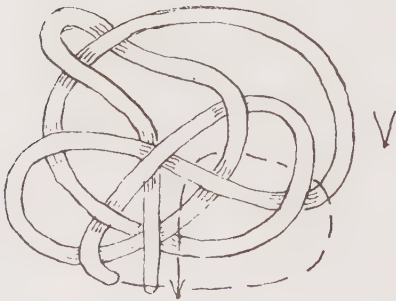
of  
Two Strands

Fig IV  
The  
Oblique  
Double Carrick  
No 2  
See page 40  
Fig III



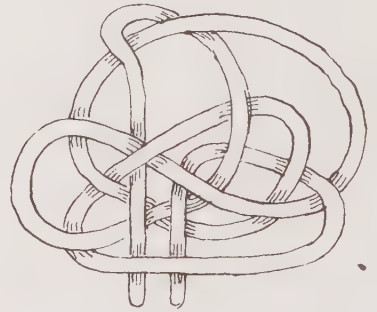
IV

VII

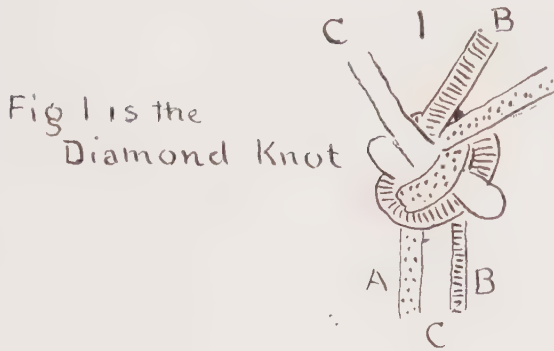


V

VI





DOUBLE DIAMOND

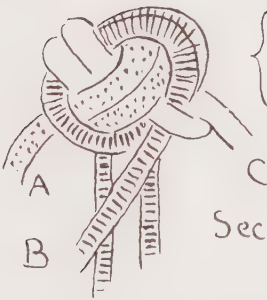
In doubling  
each strand follows  
its own lay

For practise with this, and with the various  
Stopper Knots,  
the construction is more easily followed if the strands  
are of different colors.

First stage.

II

In Fig. I



Second stage

to form Fig II

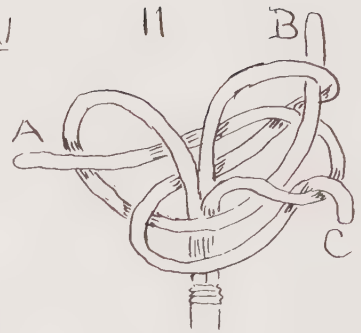
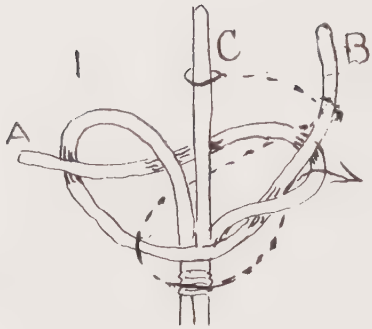


III

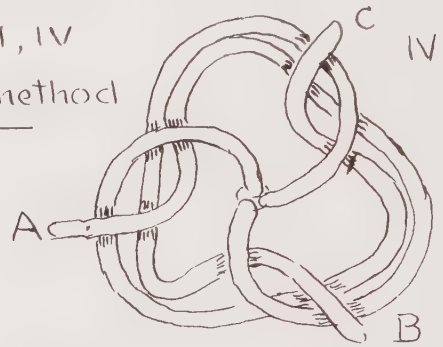
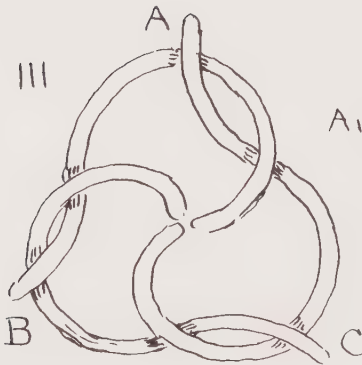
In Fig. II

- { pass A over both strands of C & under both strands of B
- { pass B over both strands of A & under both strands of C
- { pass C over both strands of B & under both strands of A

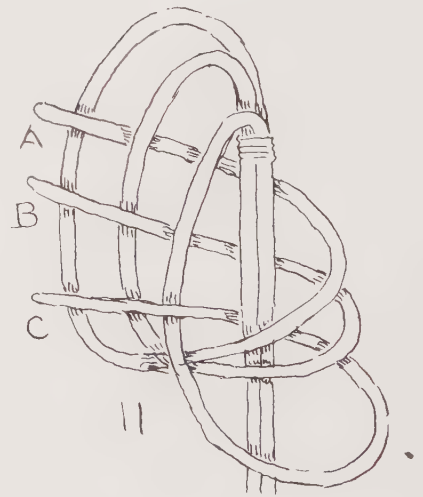
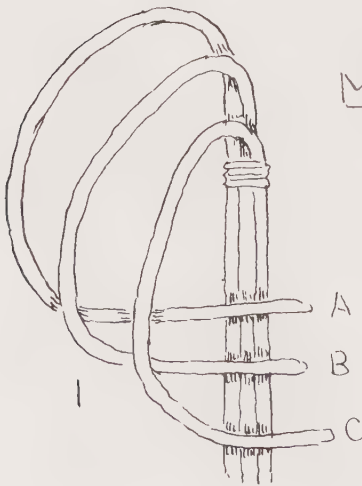
SINGLE  
MATTHEW  
WALKER

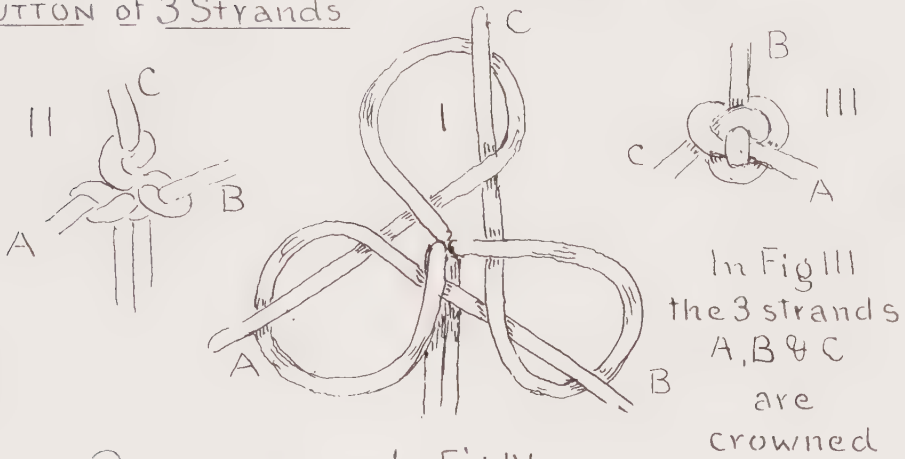


Figs. III, IV  
Another method

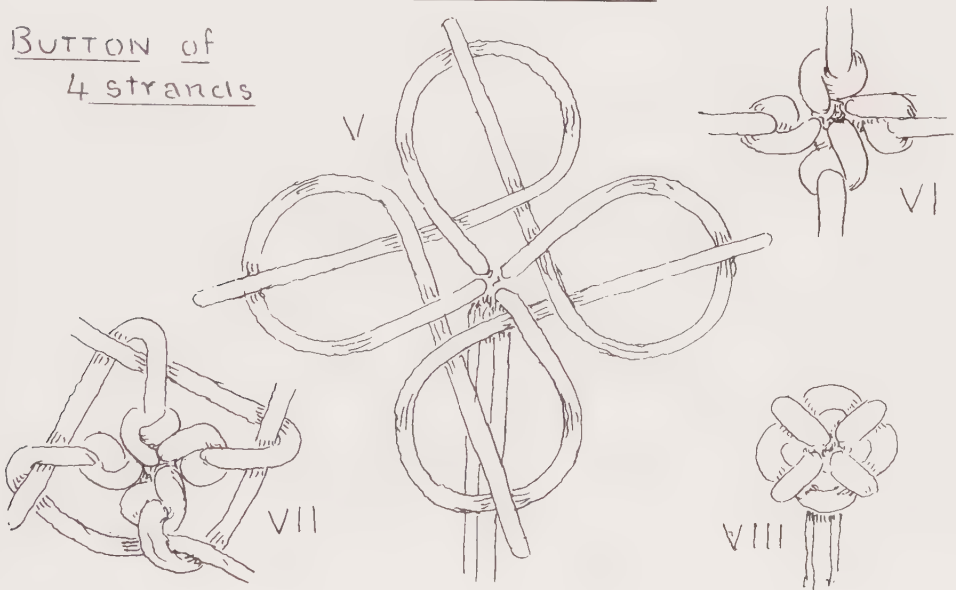


DOUBLE  
MATTHEW  
WALKER



INVERTED WALL KNOTButton of 3 Strands

In Fig. IV  
the 3 ends are passed down  
through the centre and cut off

Button of 4 strands

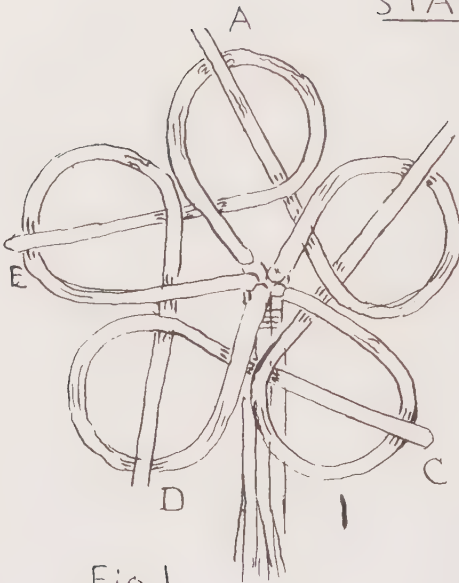
STAR KNOT

Fig. I  
Inverted Wall Knot  
of 5 strands

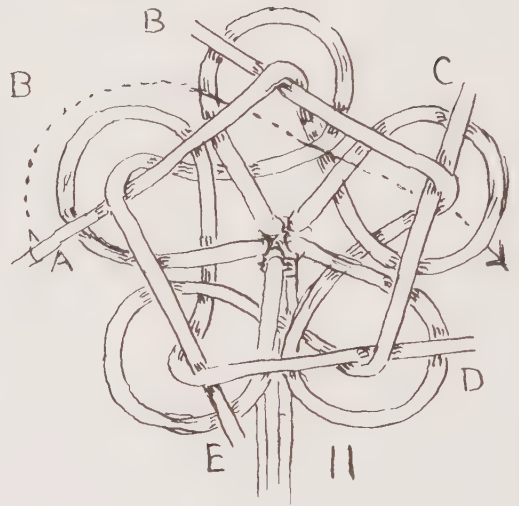
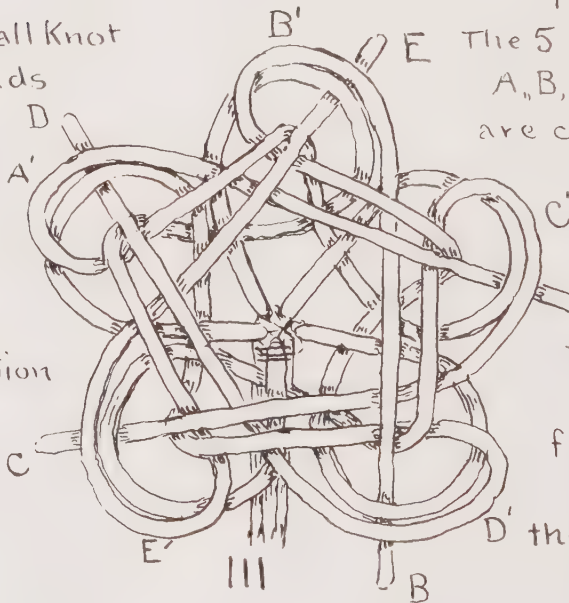


Fig. II  
The 5 strands  
A, B, C, D, E  
are crowned

Fig. III  
A'A', B'B', C'C'  
D'D' & E'E'  
show  
the next position  
of the  
5 strands



The knot  
is  
finished  
on  
the next page

STAR KNOT

Continued

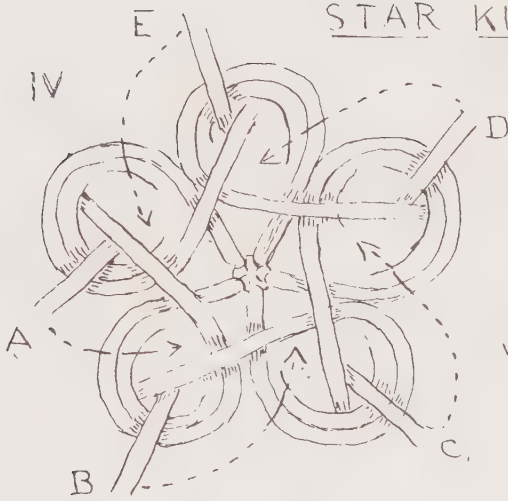


Fig IV

is

the reverse side of

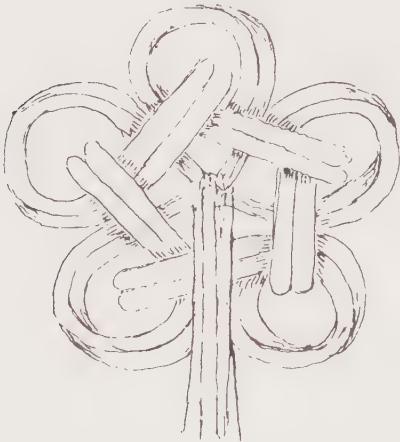
Fig. III

with some of the strands  
omitted  
to avoid confusion

Fig V

(reverse side)

The ends A, B, C, D and E  
following the arrows in Fig IV  
pass up through  
the bights and the center of the  
knot



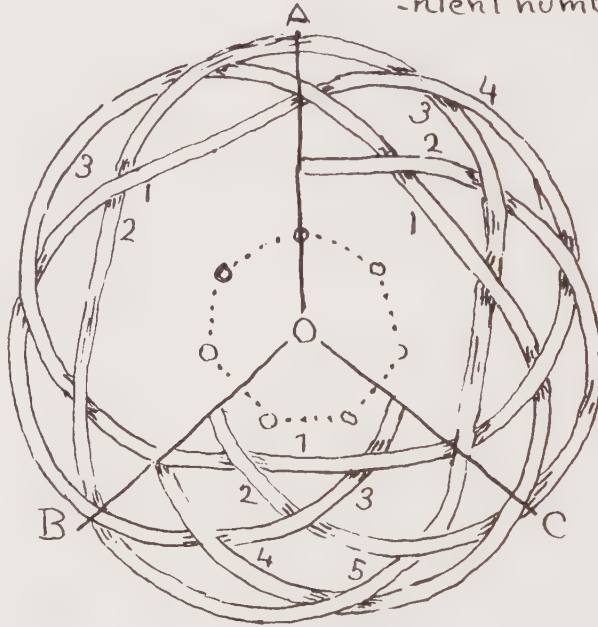
VI



## TURK'S HEAD

A Turk's Head may be defined  
as a complex of like interlacing circles  
so united as to form a single line, and whose centers are  
the angles of a regular polygon of 3, 4, 5 or of any conve-  
-nient number of sides.

This diagram  
shows 3 forms of Turk's Head  
with the same heptagonal center.



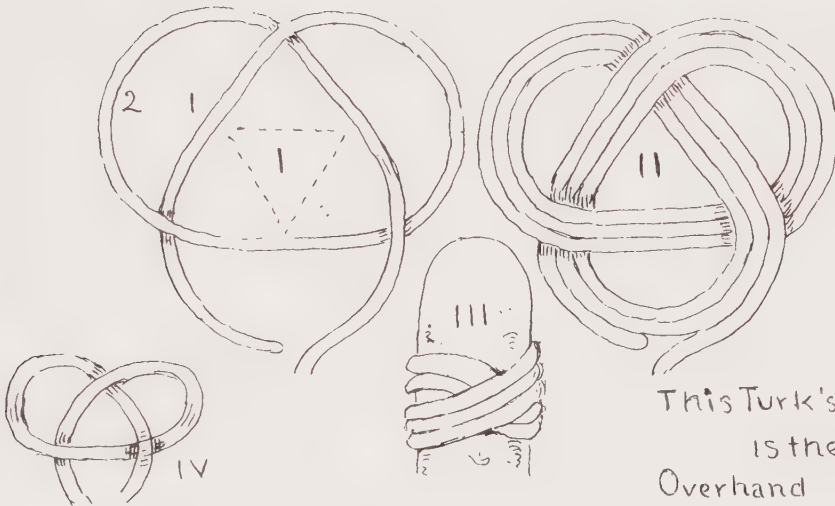
The lines AO, BO, CO.  
divide the figure into three  
sections

The section AOB  
represents a heptagonal Turk's Head of three strands

the section AOC of 4 strands		the section BOC of 5 strands
---------------------------------	--	---------------------------------

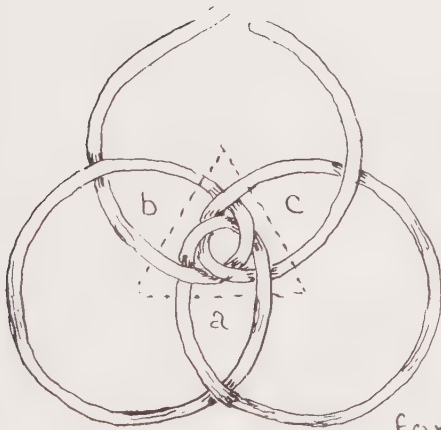
# TURK'S HEAD Triangular Center

Two strands



This Turk's Head  
is the  
Overhand Knot

## A Triangular Turk's Head Fig. IV with 4 Strands



In this Turk's Head the circles  
are joined in one line  
by means of  
loops  
a, b, c.

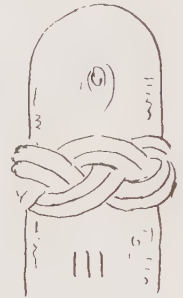
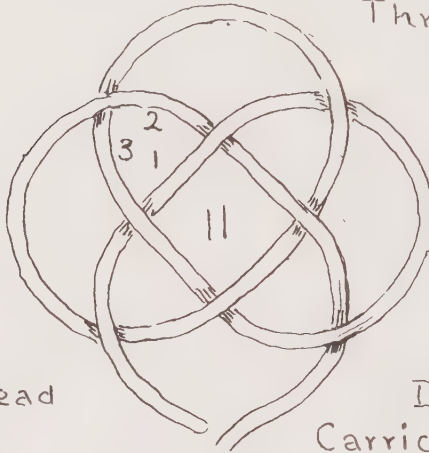
On account of the crowded  
interlacing  
at the center of the Knot  
this method is not practicable  
for centers of four or more sides



# TURK'S HEAD

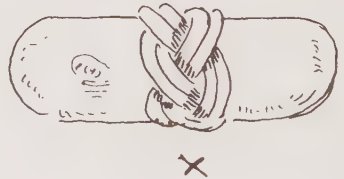
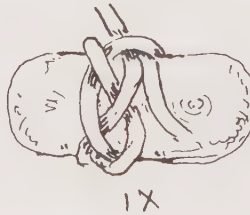
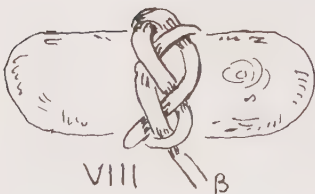
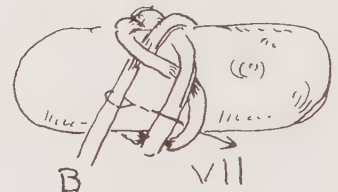
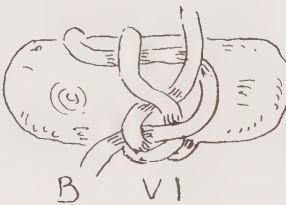
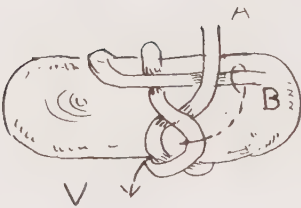
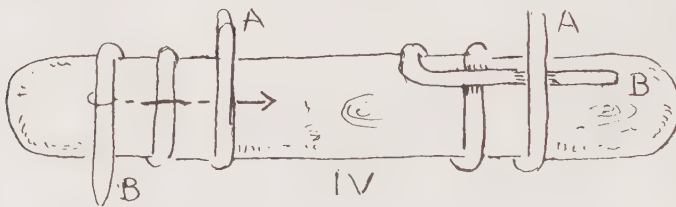
Quadrangular Center

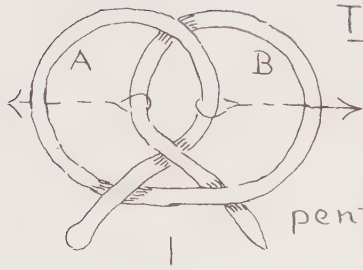
Three strands



This Turk's Head  
is the

Double  
Carrick Bend, No. 2  
Fig 1



TURK'S HEAD

of  
3 strands  
and  
pentangular center

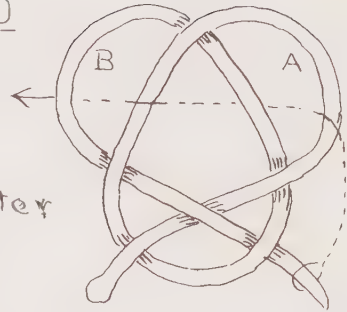
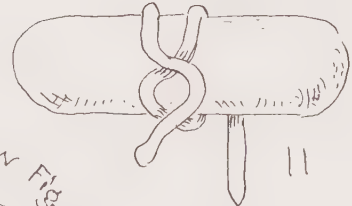
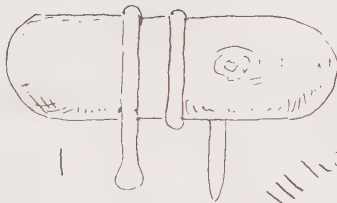
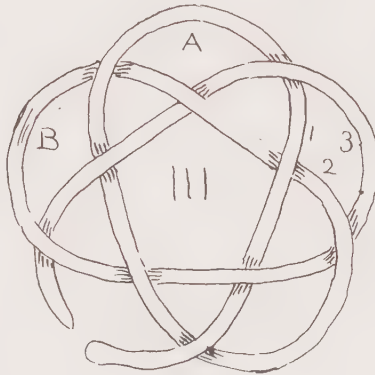
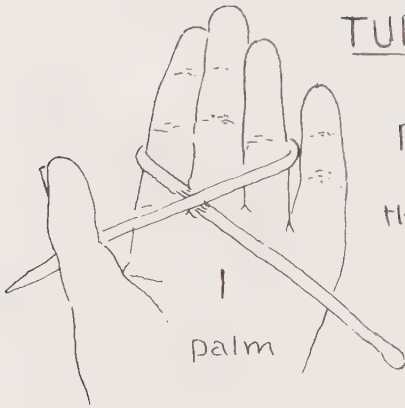


Fig. I  
is  
a form of  
the  
Figure of Eight  
Knot  
page 12



# TURK'S HEAD



pentagonal,  
of  
three strands,  
tied on the  
hand

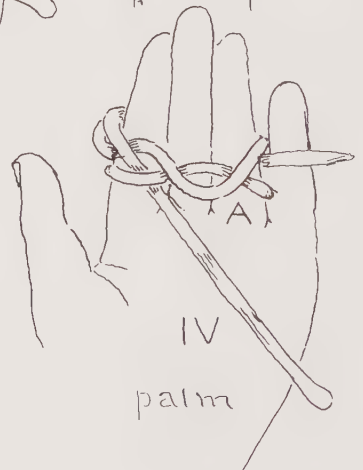
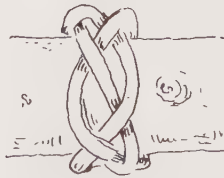
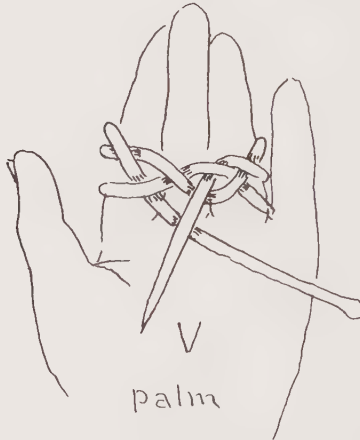
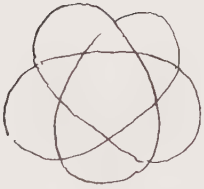


Fig IV - The bights are crossed  
at A

TURK'S HEAD

of  
four strands  
and pentangular center

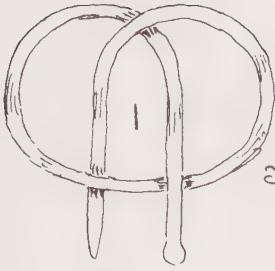
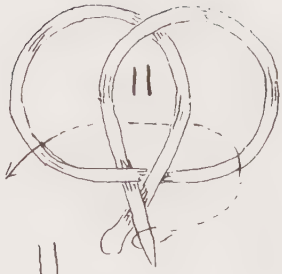
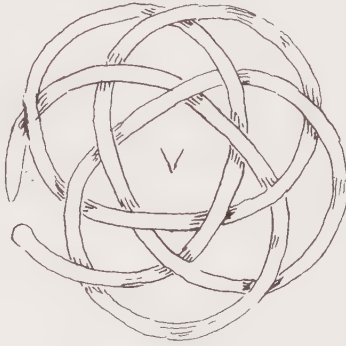


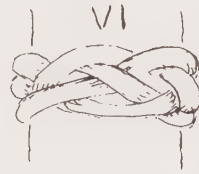
Fig 1  
is the  
Overhand  
Knot



II



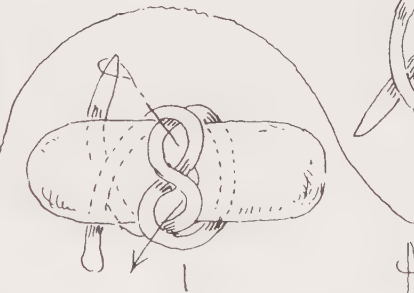
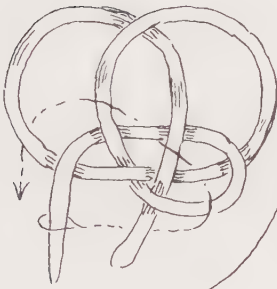
V



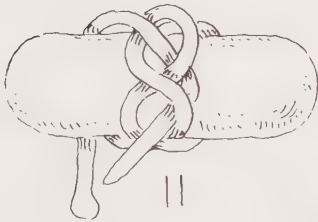
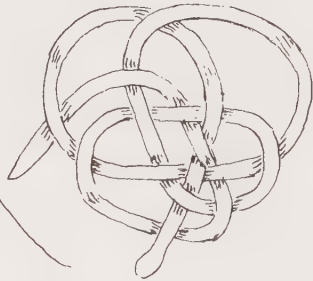
VI

IV

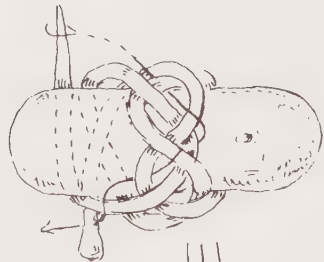
III



I

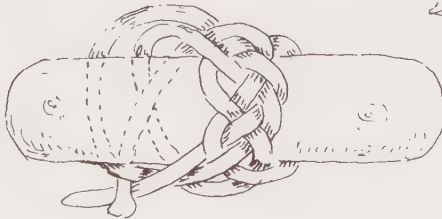


II



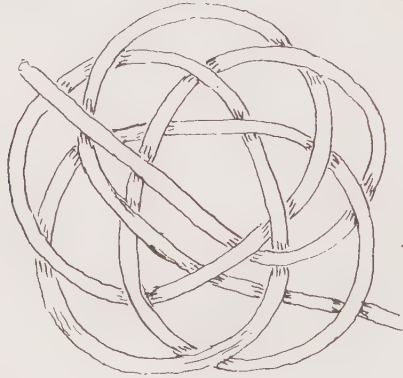
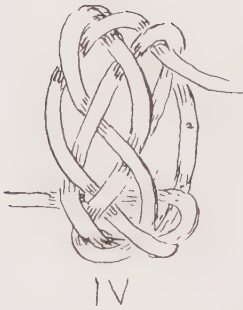
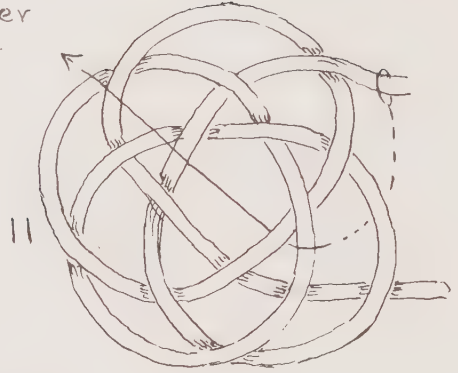
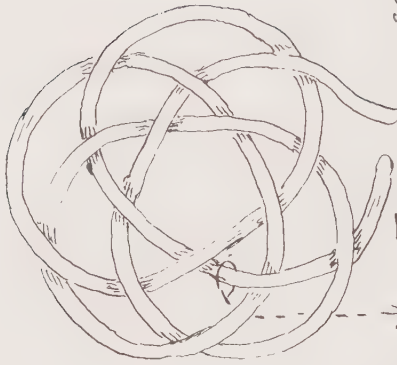
III

IV

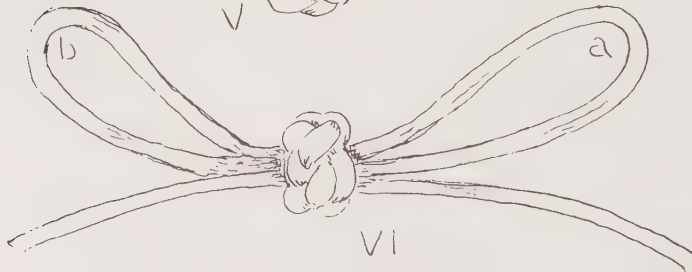


TURK'S HEAD

as a  
Stopper  
Knot



In Fig. VI  
the bights of the  
ends are  
pulled through  
the knot, forming  
a Bow Knot



TURK'S HEAD

as a

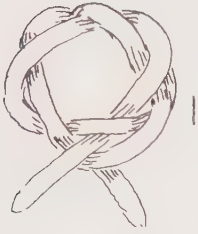
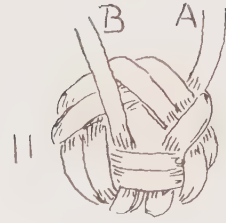
BUTTON

Fig. I- Turk's Head

Fig. II- The strands  
are doubleFig. III  
End A carried down through  
the Knot

Top of knot



V

Fig. V

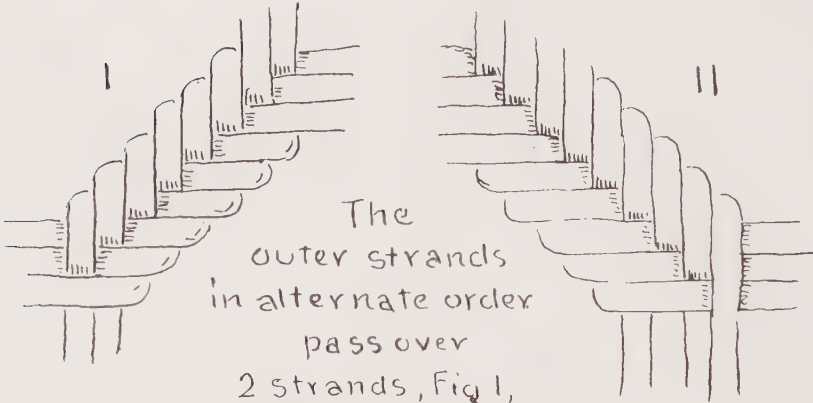
A and B' are crowned  
and are passed up through  
the centre of the crown  
coming out  
alongside of B-B''  
All ends are cut off except  
one loop

Fig. VI

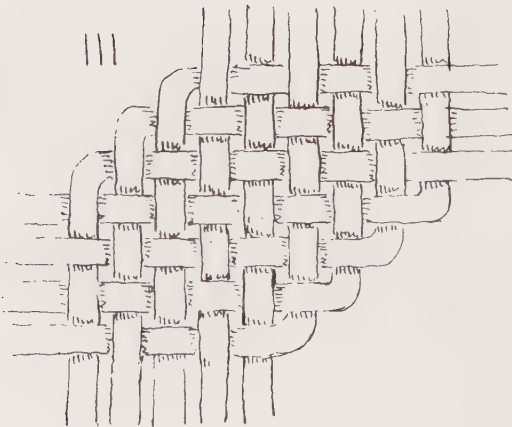
Fig. IV  
End B is carried down  
and back through  
the Knot  
forming two loops  
B' and B''

SENNIT

Plaiting with an uneven  
number  
of strands

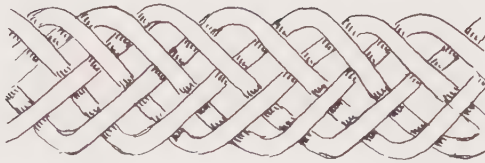
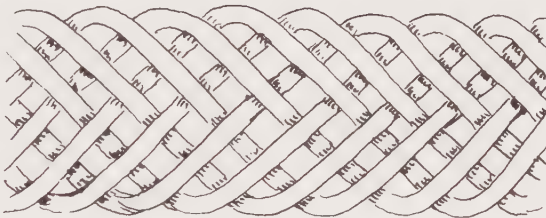
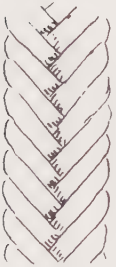
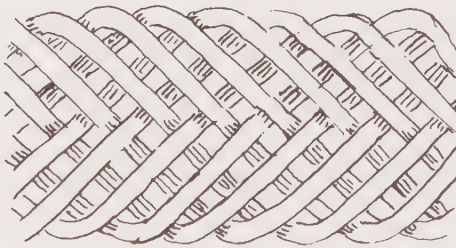
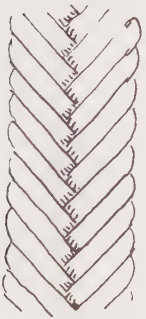


The  
outer strands  
in alternate order  
pass over  
2 strands, Fig 1,  
3 strands, Fig 2.  
(or any convenient number)  
meeting in a  
"herring-bone" central line

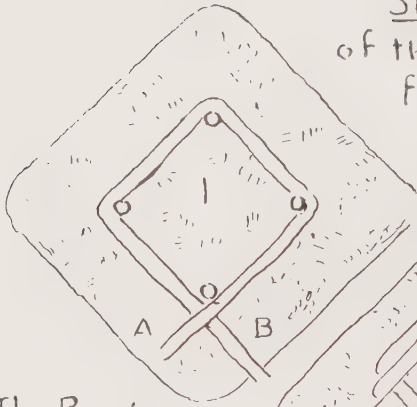
FRENCH SENNIT

The strands  
in  
this method  
may be  
odd or even  
in number



SENNITOf Five StrandsOf Seven StrandsOf Nine Strands

SENNIT  
of three Strands  
forming  
a Ring



The Ring  
may be tied  
around 4, 6, 8,  
or  
any even number of  
pins

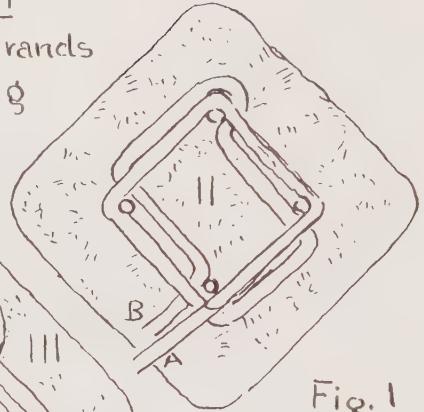
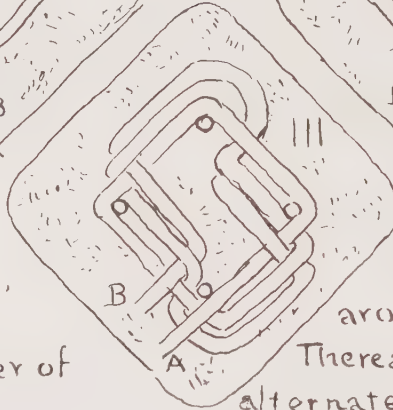


Fig. I



Begin at A.  
Carry the line A B  
around outside of pins  
Thereafter the line lies  
alternately outside and  
inside of the pins - Fig. II, III

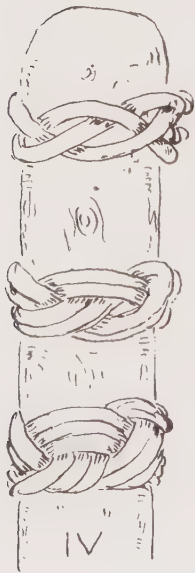


Fig. IV  
The strands of  
Fig. III  
are thrown over  
a post,  
The strands  
may be  
doubled  
or  
tripled

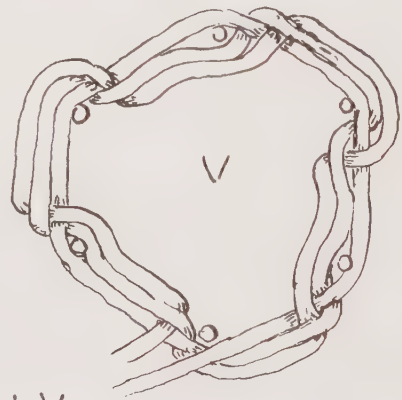
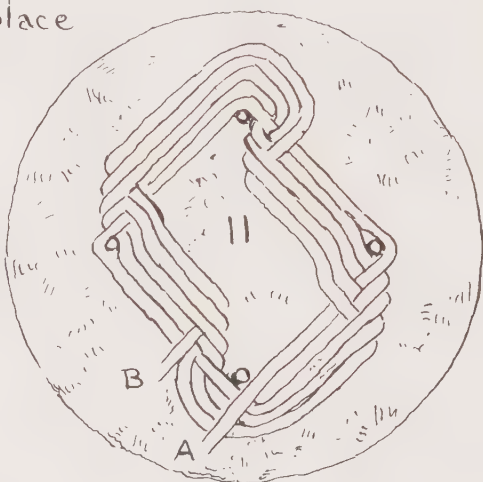
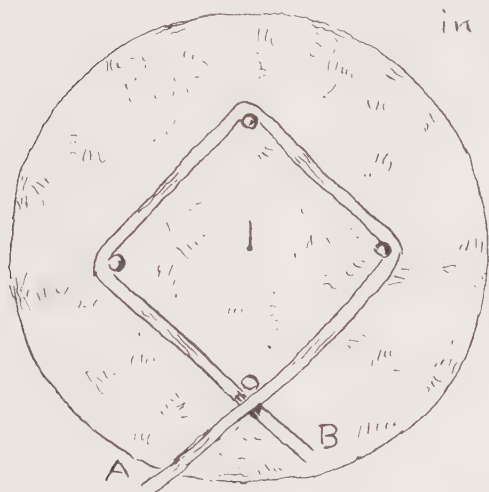


Fig. V

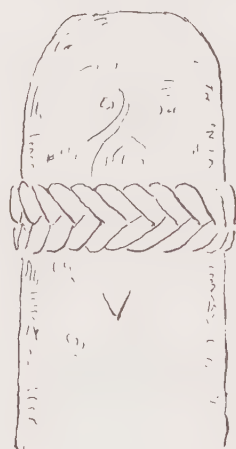
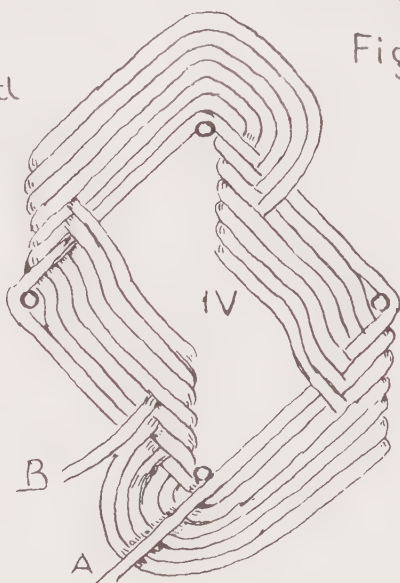
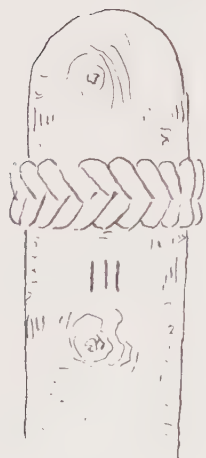
is the same Sennit  
tied around six pins.

of Five and Seven Strands forming Rings  
In addition to the four fixed pins, others are needed to  
hold the work  
in place

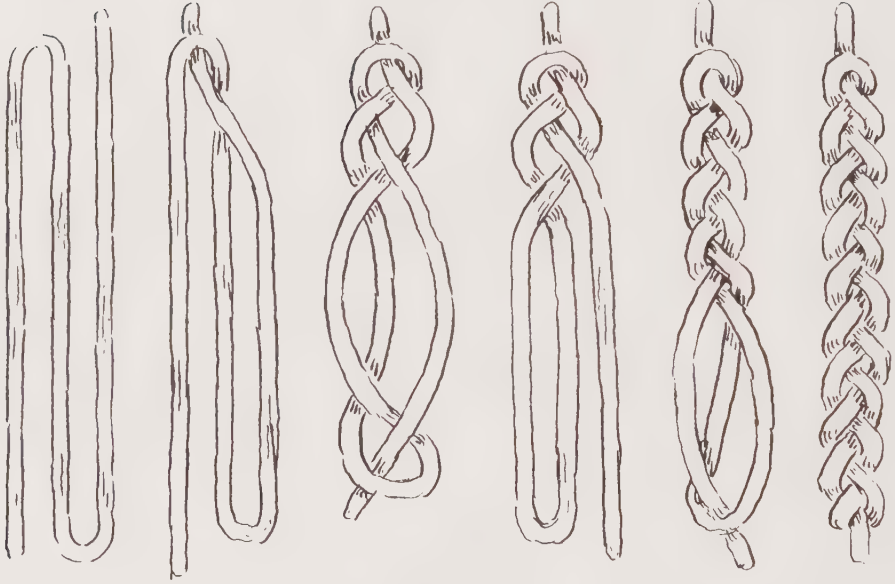


Figs. I-II-III  
Five-strand  
Sennit

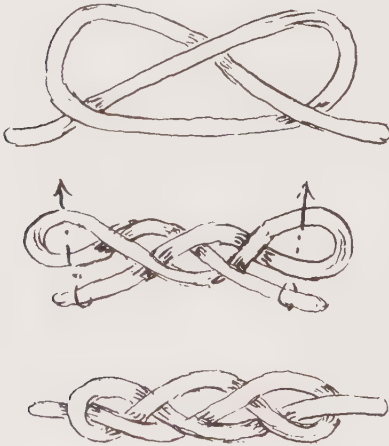
Figs. I-IV-V  
Seven-Strand  
Sennit



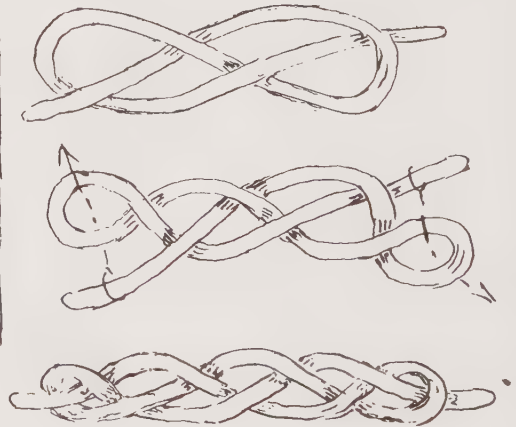
# THREE-STRAND SENNTS tied with one line



## Overhand Knot



## Figure of Eight Knot



# TRIANGULAR BRAID OF TWO STRANDS

Fig. I A loop C is formed by tying an Overhand Knot with the bight of strand A

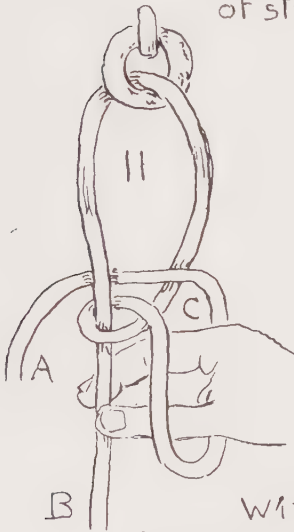


Fig. II - With the fingers through the loop C seize B, pull it through the loop C, at the same time pull A thus forming a new Loop D

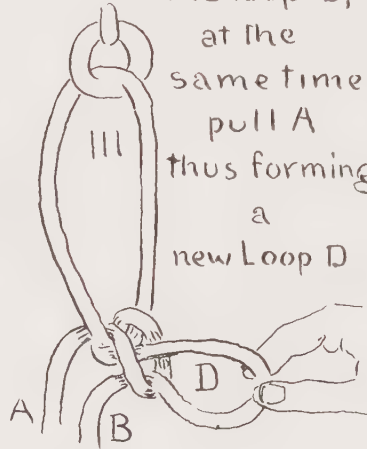
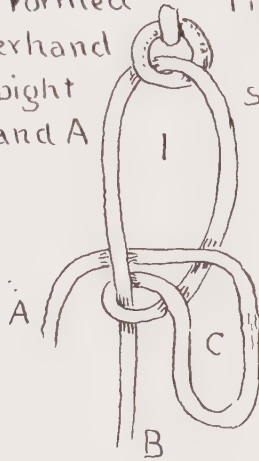
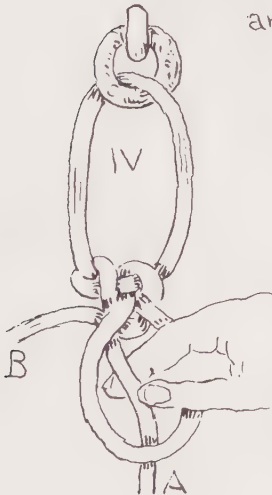


Fig. IV

With the fingers through D form a new Loop with the bight of A, and by pulling B, and so on, forming loops alternately with the two strands



The three faces of the Braid



# SINGLE STRAND SQUARE BRAID

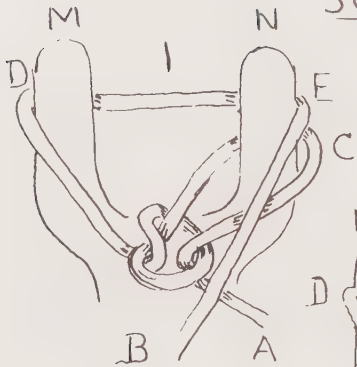


Fig I  
Arrangement  
of the cord AB  
on the fork

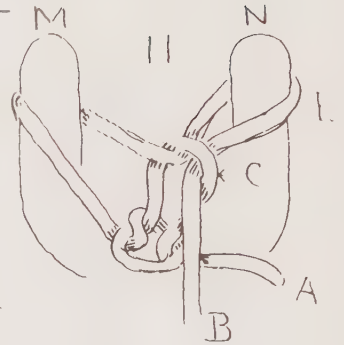


Fig II  
Pass the Slipnoose C  
over E & N

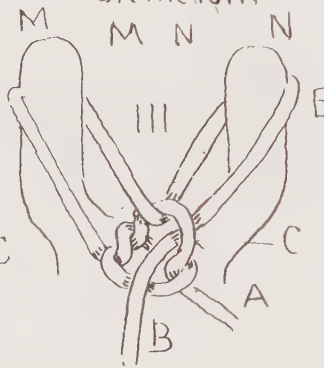
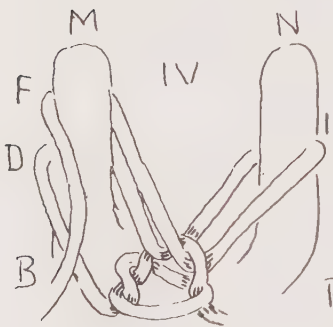


Fig III  
Draw C taut with A  
(A is no longer  
used). N



The braid begins

Fig IV  
Pass B around M  
at F

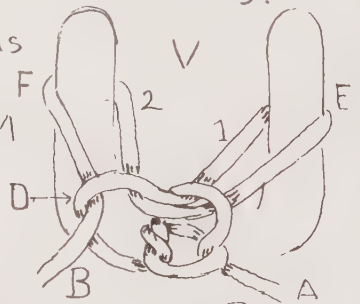


Fig V  
Pass D over F & M

Pull D taut First with 1 - next with 2 - then with B

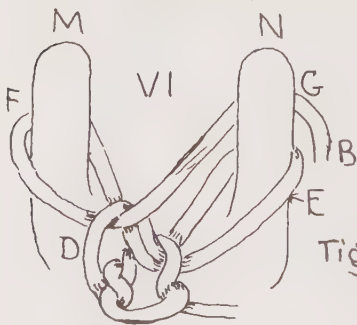
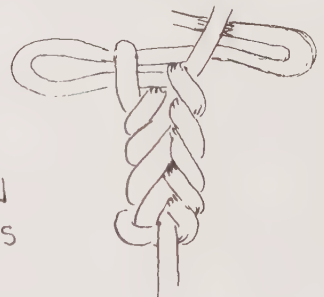


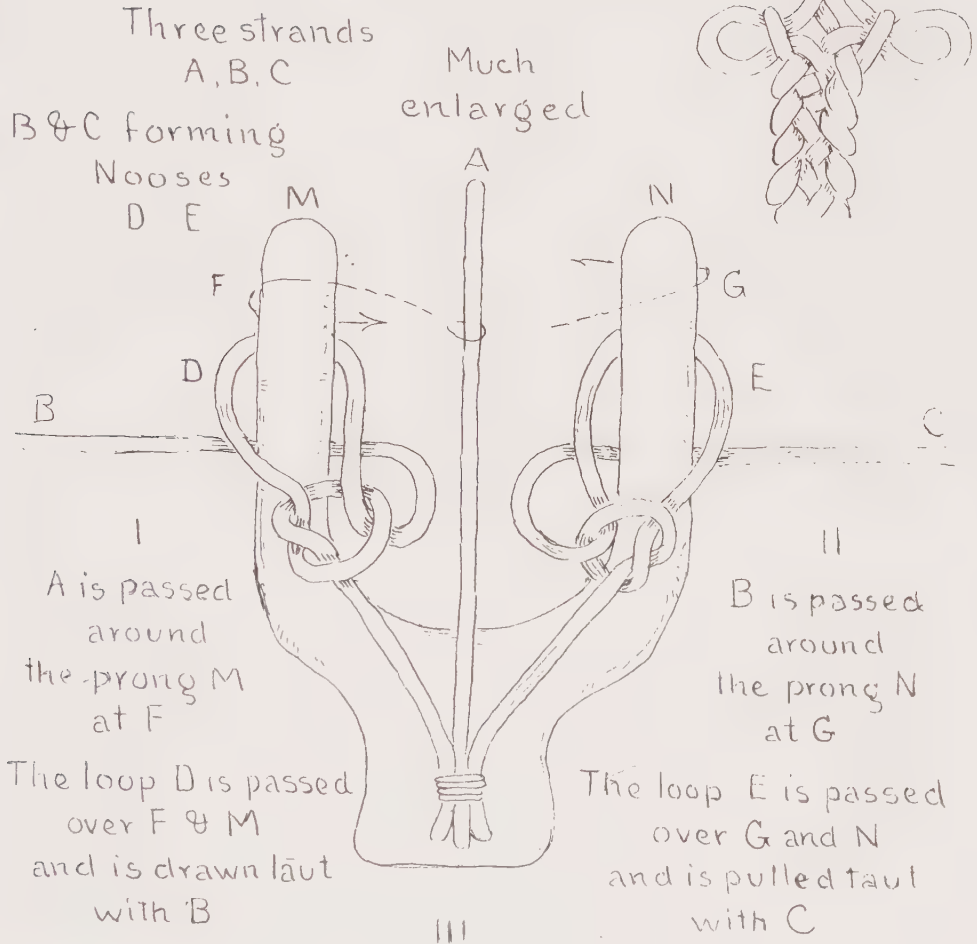
Fig VI

Pass B around N  
at G

Pass E over G & N  
Tighten with 3 pulls  
and soon



# BRAID OF THREE STRANDS



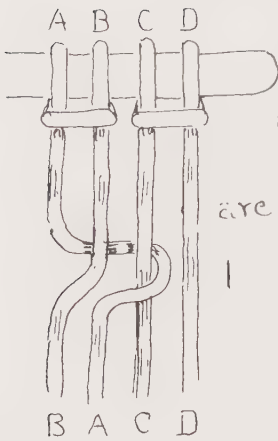
C is then passed around M etc.

The strand that pulls its loop taut forms the next  
new loop

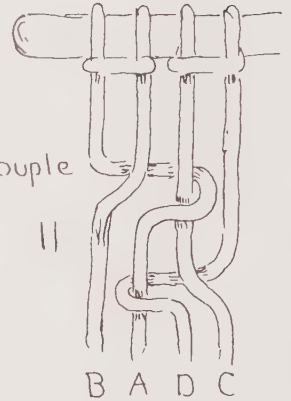
The arrows at F & G indicate the lay of the  
strands that form the new loops.



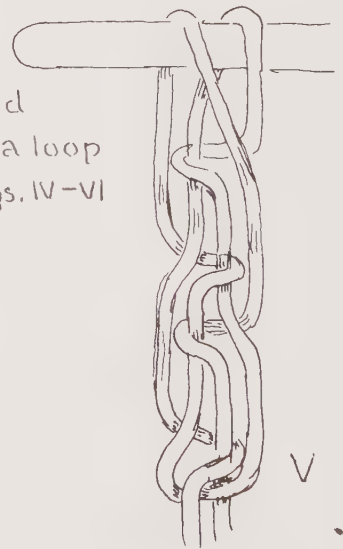
# FOUR-STRAND ROUND BRAID



The strands A & B  
are always the left hand,  
the strands C & D  
are always the right hand, couple

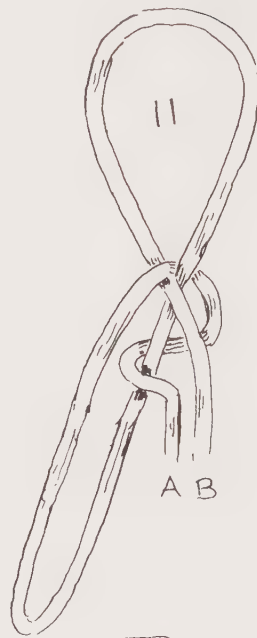
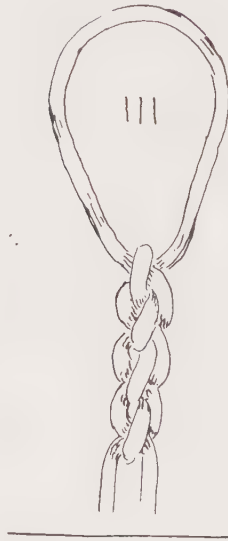


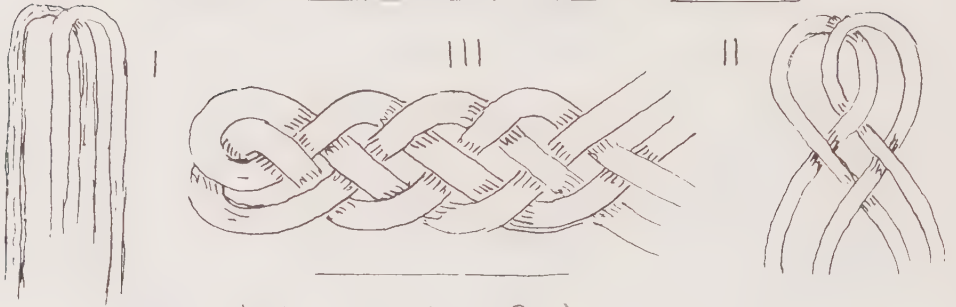
The Braid can be tied  
when 2 of the strands form a loop  
Figs. IV-VI



ROUND BRAID

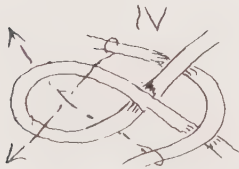
tied with a doubled strand

With leather straps

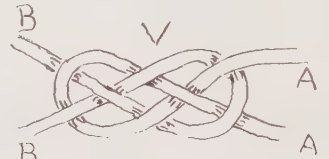
FOUR-STRAND FLAT BRAID

Joining two Strands

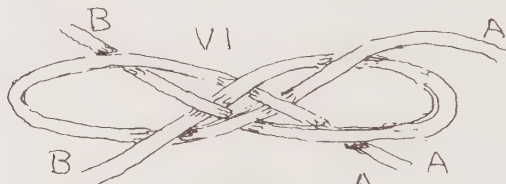
A and B



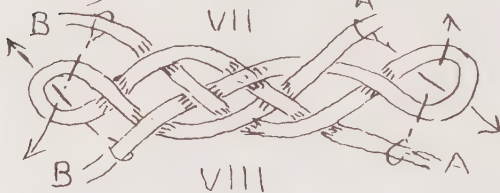
Figs. IV, V  
the  
Carrick Bend B



The Braid can be extended indefinitely at each end or at both ends Figs. VI, VII, VIII



Pull  
the bights  
of  
Fig. V



To form  
the  
Fig. VI

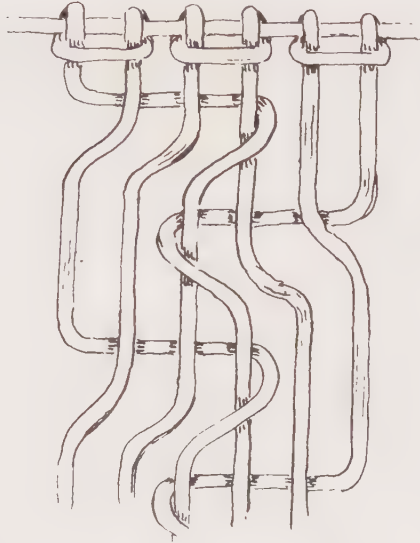


# A SIX-STRAND AND EIGHT-STRAND BRAID

## Half Round Braid



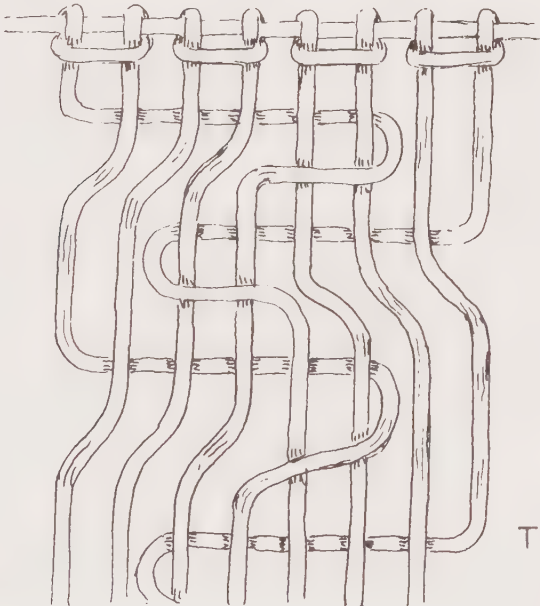
Front



Back



## Square Braid

The four sides  
alike

# SQUARE BRAID

of ten strands

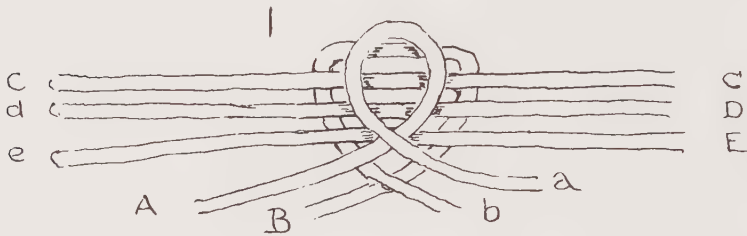


Pass A over B-C-D-E

Pass a over b-c-d-e-A

Pass b under c-d-e-A

Pass B under C-D-E-a-b



Pass C over D-E-a-b

Pass c under e-A-B-C

Pass c over d-e-A-B-C

Pass D under E-a-b-c-d

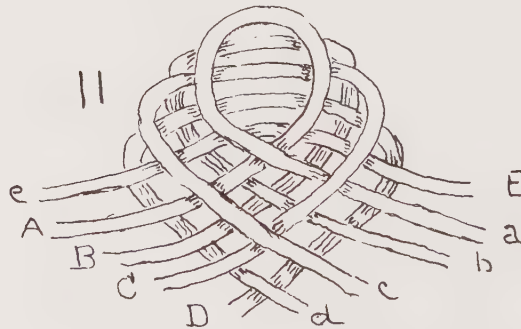
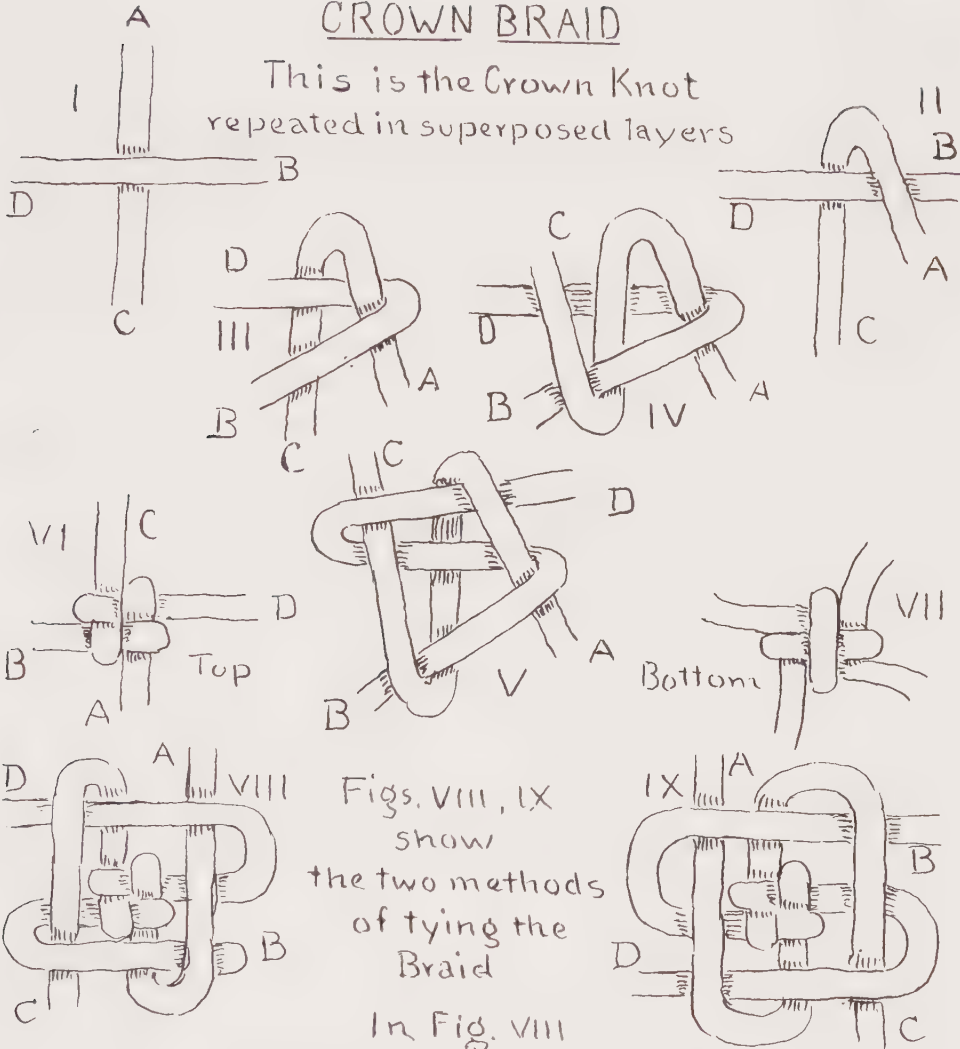


Fig. II repeats the method of Fig. I and its repetition forms the Braid.

CROWN BRAID

This is the Crown Knot  
repeated in superposed layers



Figs. VIII, IX  
show  
the two methods  
of tying the  
Braid

In Fig. VIII  
each strand is laid to & fro  
upon itself

reversing, in the alternate layers, the order of rotation

In Fig. IX

the order of rotation is always the same

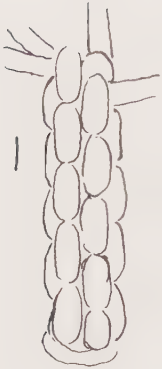
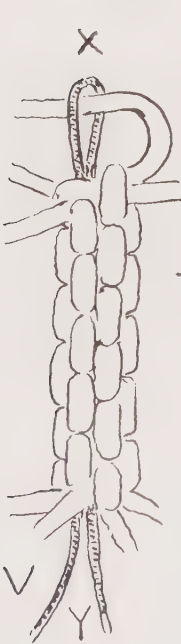
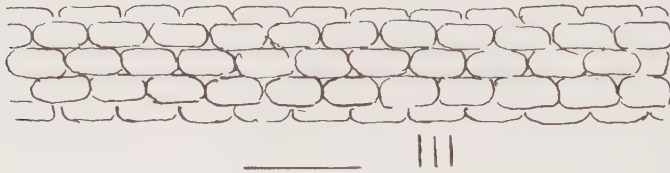
CROWN BRAID

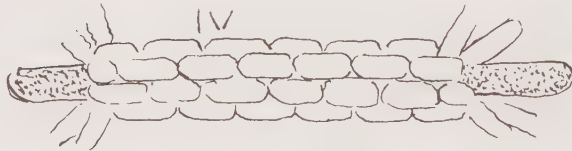
Fig. I  
is the Braid tied by the method of  
Fig. VIII on the last page



Fig. II  
is the Braid tied by the method of  
Fig. IX, on the last page

Six-Strand Braid

The Braid may be tied around  
a Core, Fig. IV



The Core may be pulled out  
Fig. V

and, with a copper wire X-Y,  
the strands  
at each end of the Braid  
can be drawn  
through the centre, Fig. VI, so as  
to form  
a neat finish at both ends





CHAIN BRAID

Single

tied with the  
Bight  
A



The  
single  
Chain Braid

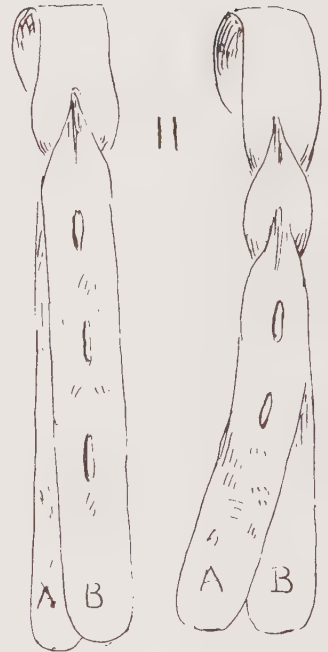
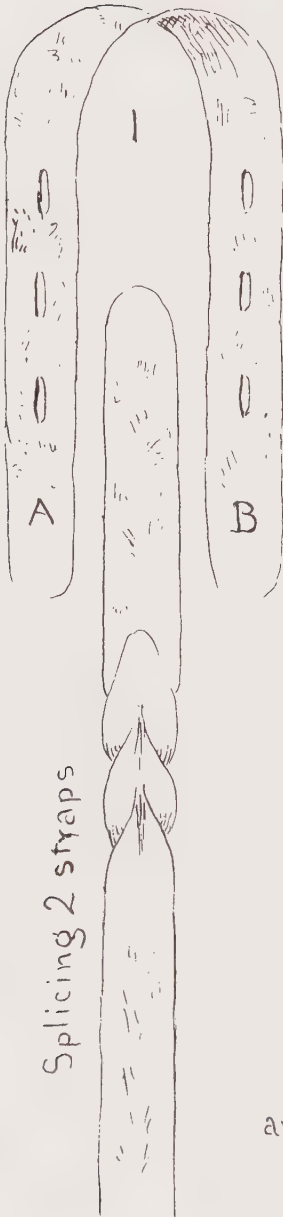
is the fundamental Knot  
in Crochet & Knitting



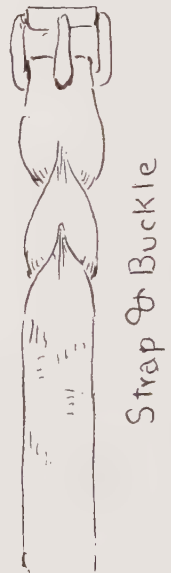
Double

tied with the  
End  
B



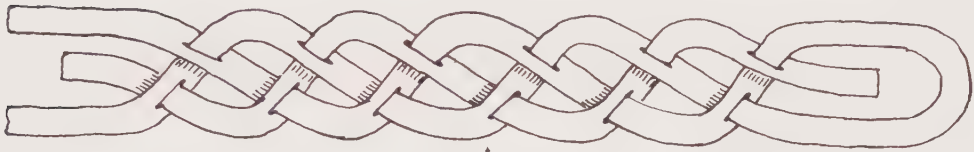
FALSE BRAIDin  
Leather

The leather straps  
while wet  
are pulled in alternate order  
through  
the slots

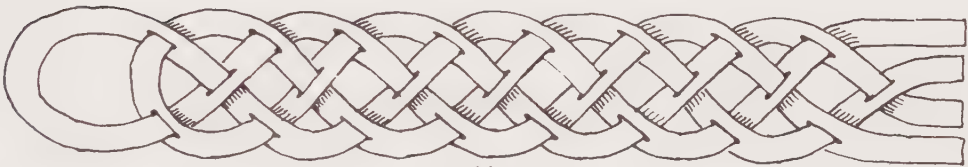


## FALSE BRAID

Three straps may unite in a False Braid  
as shown in Fig I



Four straps may also be combined as  
shown in Fig II



II

The slits are cut one by one as the work progresses

The Braid will be square in cross section  
when, with 2 straps, the width of the strap is twice  
its thickness—with 3 straps, 3 times, & with  
4 straps, 4 times the thickness.

The 3 methods may combine to form a Leash or Quirt

III



←--- 4 straps --- \* --- 3 straps --- \* --- 2 straps ---→

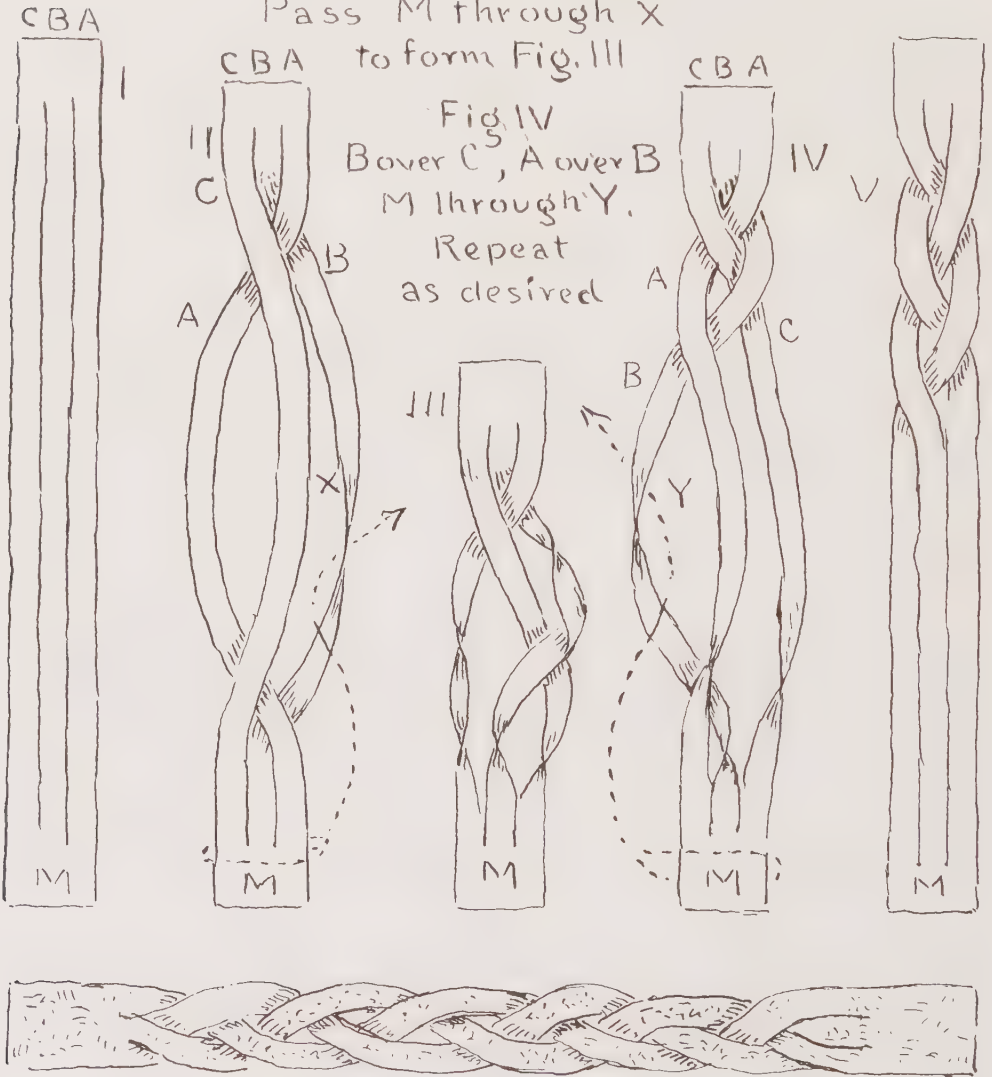
TRICK BRAID

Fig. I - Leather strap with two slits and three strands

Fig. II - A over B and C over A

Pass M through X

CBA to form Fig. III

Fig. IV  
B over C, A over B  
M through Y.Repeat  
as desired

# SAILORS KNOTS

## REEVING LINE

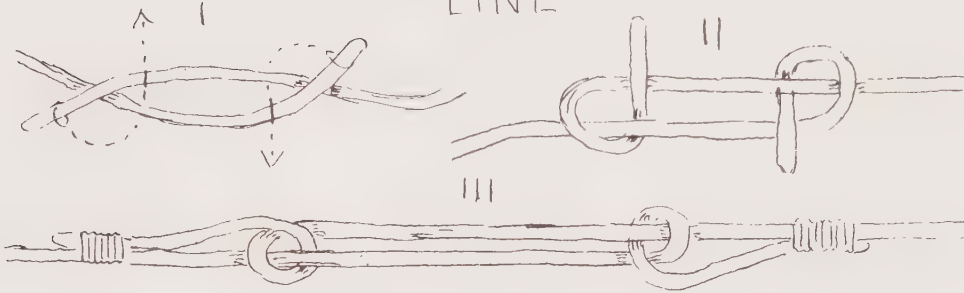
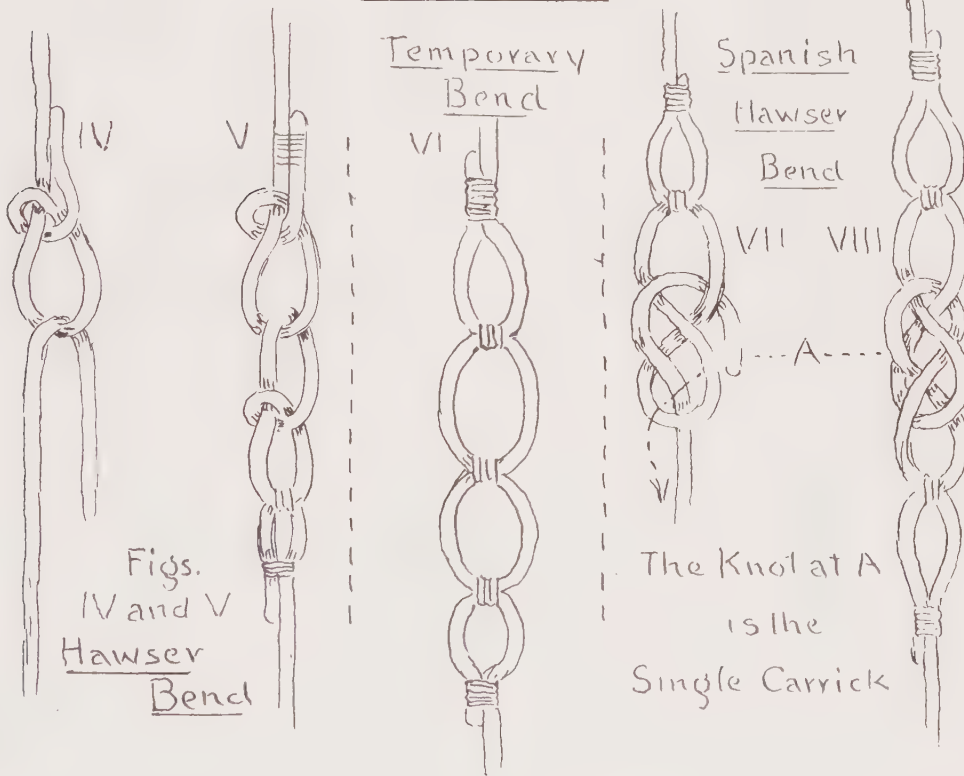


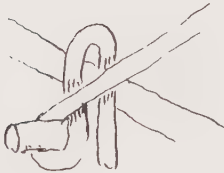
Fig. II is the Half Granny

see page 30



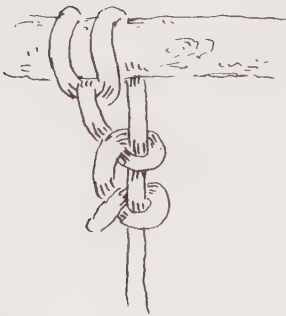
HITCHES

Hook and Half Hitch

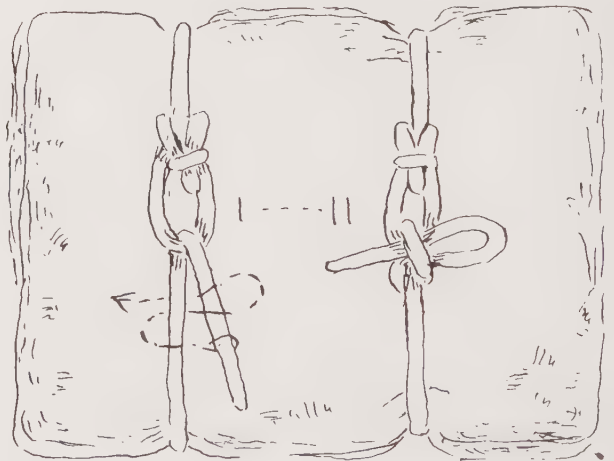


Drawing Knot  
Bowline and Half Hitch

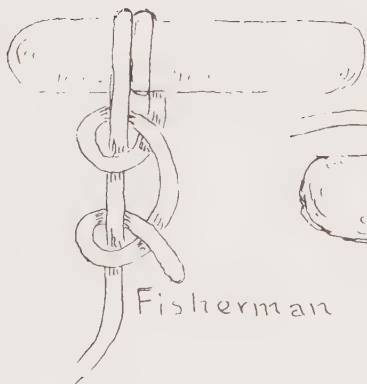
Slippery  
Hitch



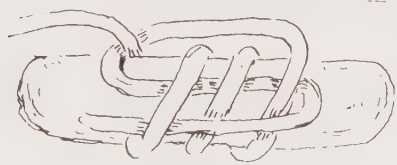
Backhanded Hitch



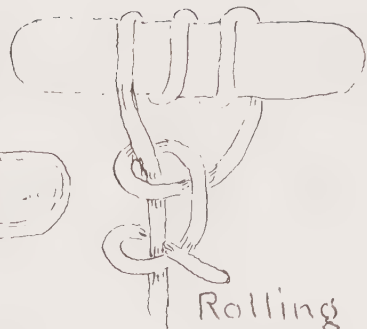
HITCHES



Fisherman

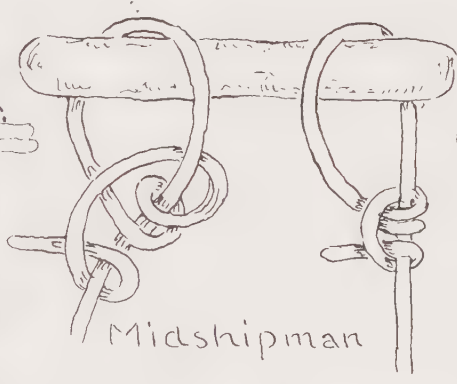
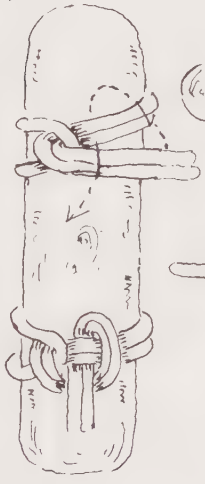


Top's  
Halyard

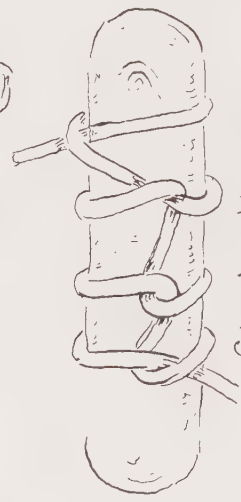


Rolling  
Hitch

Lark's Head & Half Hitch

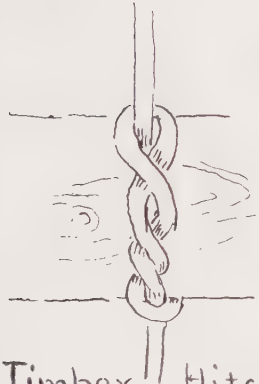


Midshipman

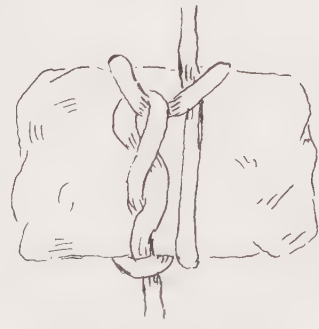


Chain Hitch

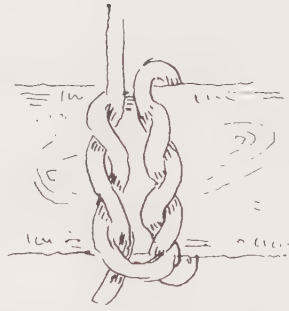
Twists



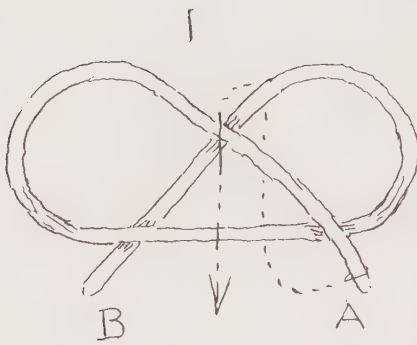
Timber Hitch



Killick Hitch

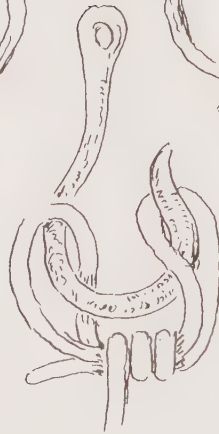


Double Twist

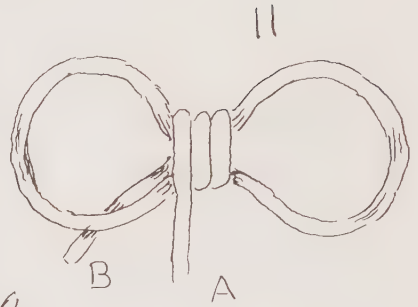
CATSPA W

Form two  
Loops  
as  
in Fig. I

Single

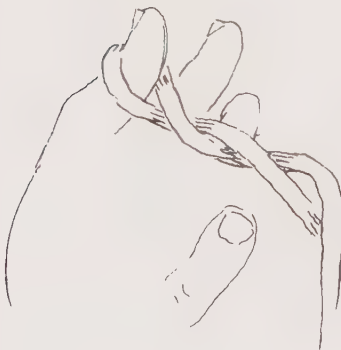


Throw the two loops onto the hook



Pass  
the strand A  
2 or 3  
times around  
the loops

The two  
fore fingers form  
the two loops  
C & D



Double



The line  
is twisted by turning  
the fingers two or three  
times





HEAVING LINE

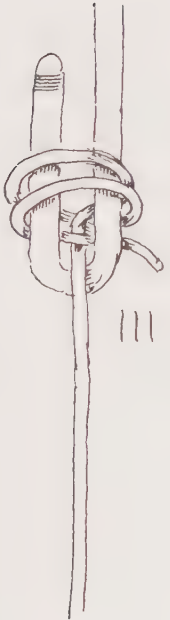
Figs. I, II  
Terminal Knot  
of the  
Heaving Line



I



II

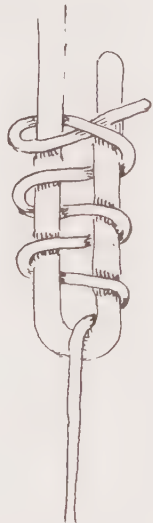


III



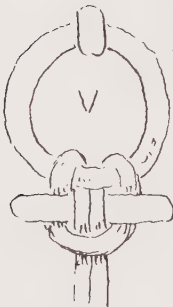
Figs III, IV  
Bends  
of the Heaving Line and  
Hawser

IV

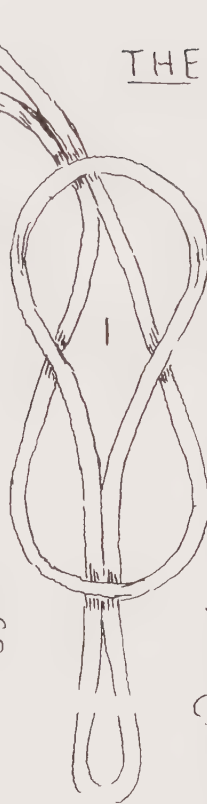


THE TOGGLE

Figs. I, II, III  
Strop  
Toggle



Toggle & Lark



Eye Toggle

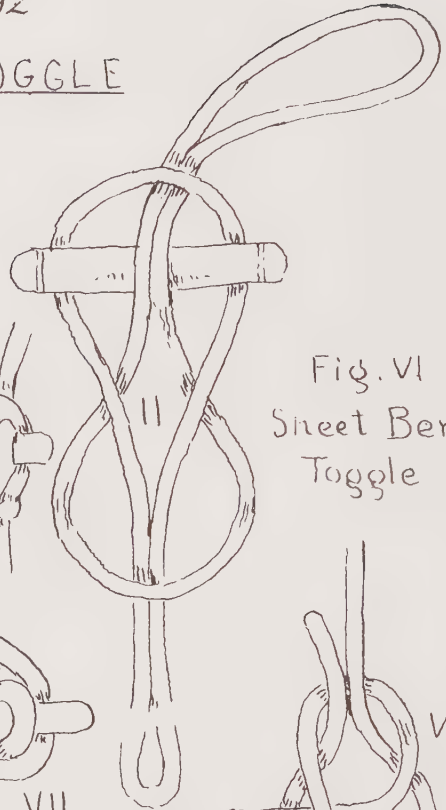
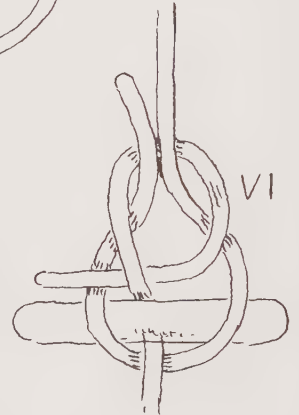
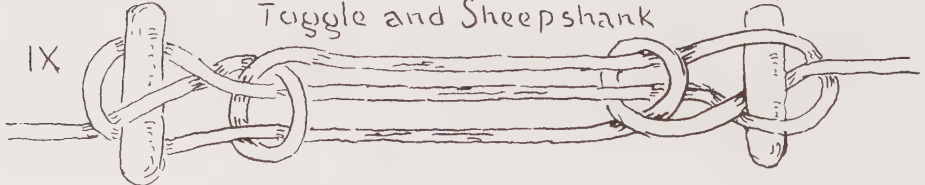
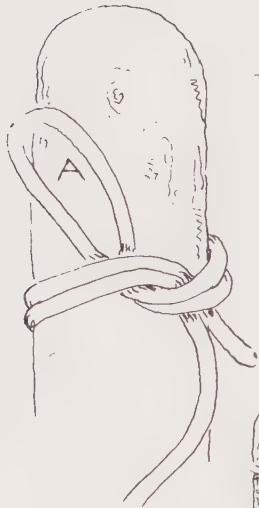


Fig. VI  
Sheet Bend  
Toggle

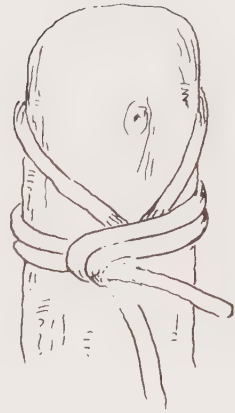


Toggle and Sheepshank

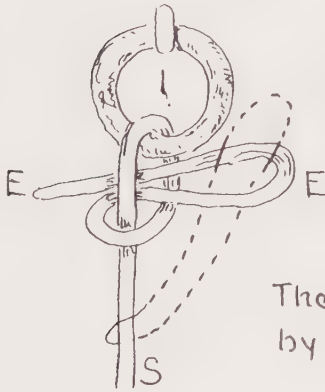


MOORINGOver a Post

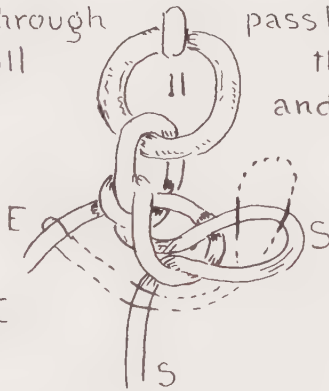
Tie an Overhand Knot on  
the post  
with the bight of the  
line  
and throw the  
loop A over the post

Through a Ring

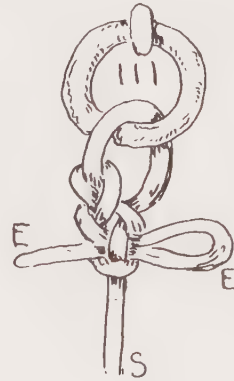
In Fig I  
pass the bight of S through  
the loop E and pull  
the end E



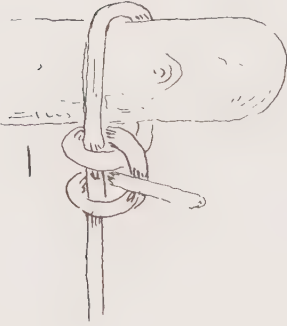
In Fig II  
pass bight of E through  
the loop S  
and pull the end S



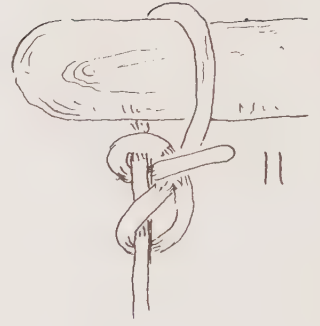
The knot is released  
by pulling the end E  
of III



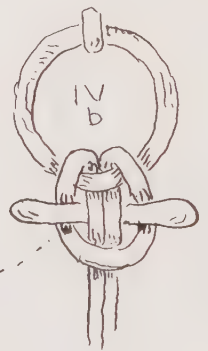
MOORING



Figs I, II  
Two  
Half Hitches

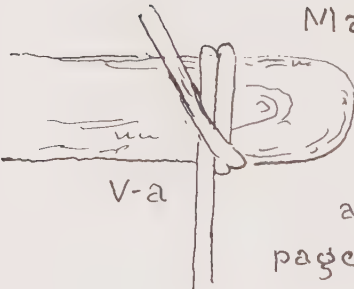


Lark's Head

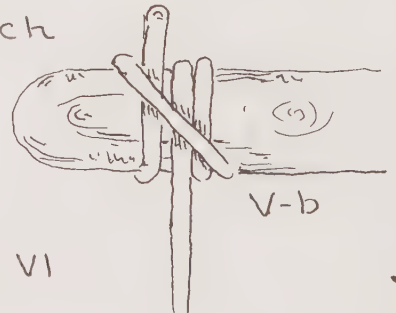


With  
bight & toggle

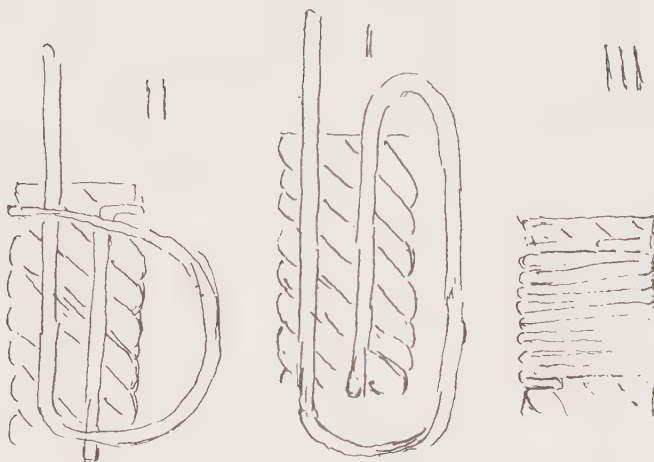
Magnus Hitch



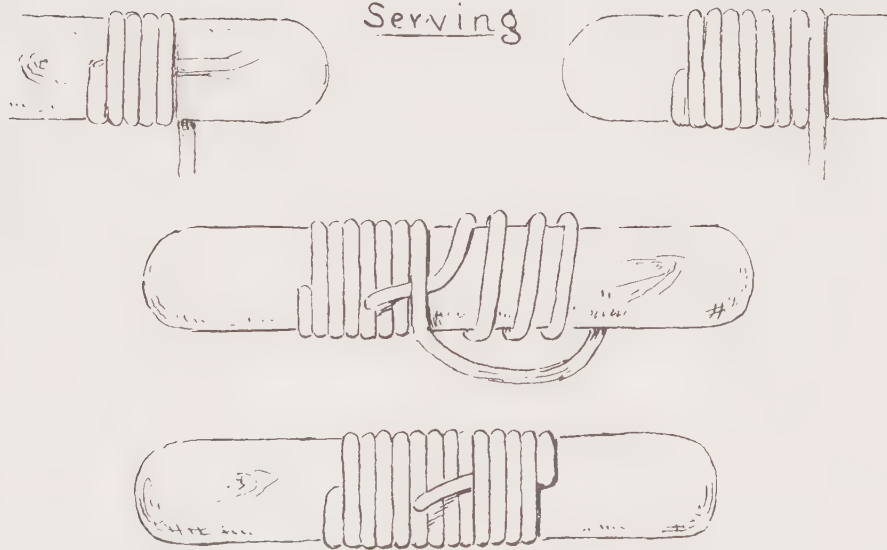
or  
as shown on  
page 8 — Figure VI

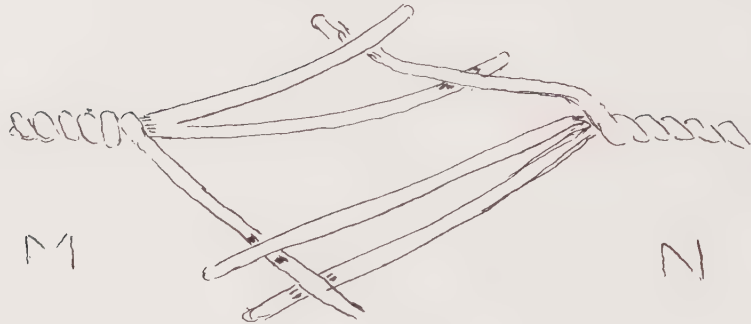


WHIPPING

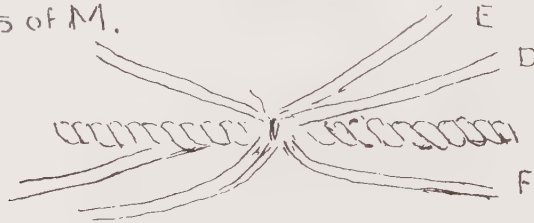


Serving



SPLICING

Unlay 7 or 8 strands of the two ropes M and N to be spliced. Arrange them in such manner that each strand of M lies between two strands of N and each of N lies between two strands of M.



Push the six strands close together and bind them temporarily with twine

SHORT SPLICE

Braiding

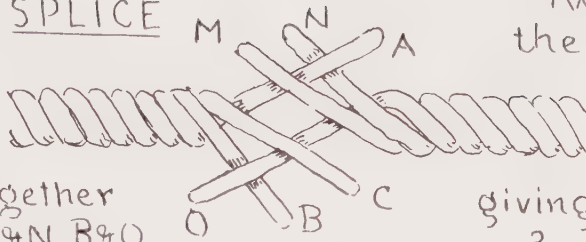
Each strand passes over the next one and then under the second beyond.

SHORT SPLICE

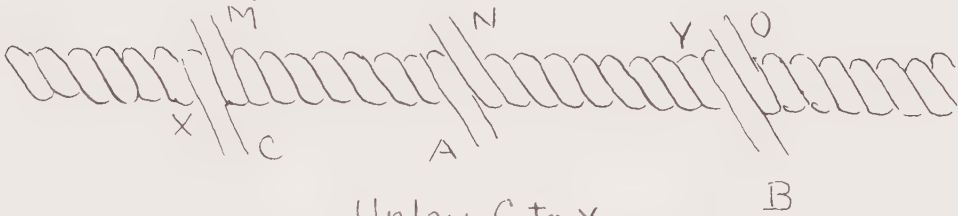
Twisting the Strands

Twist Together  
C & M, A & N, B & O

giving each end  
3 or 4 turns

LONG SPLICE

Marry the strands as shown above



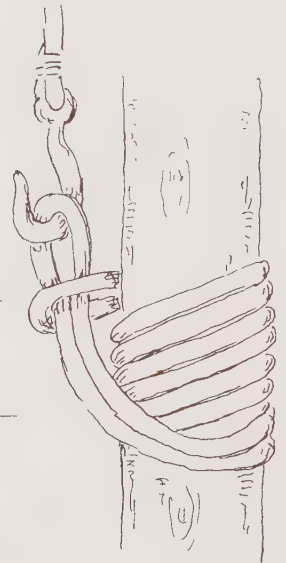
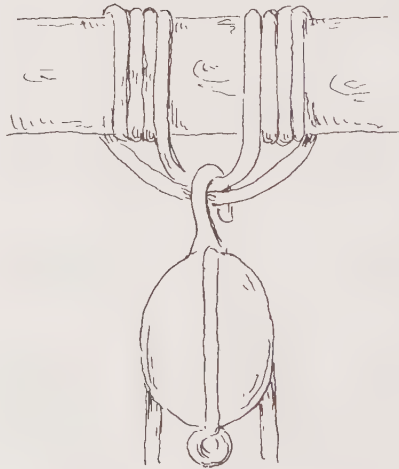
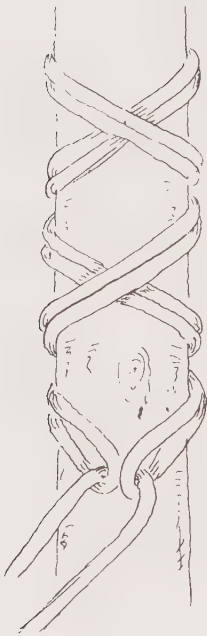
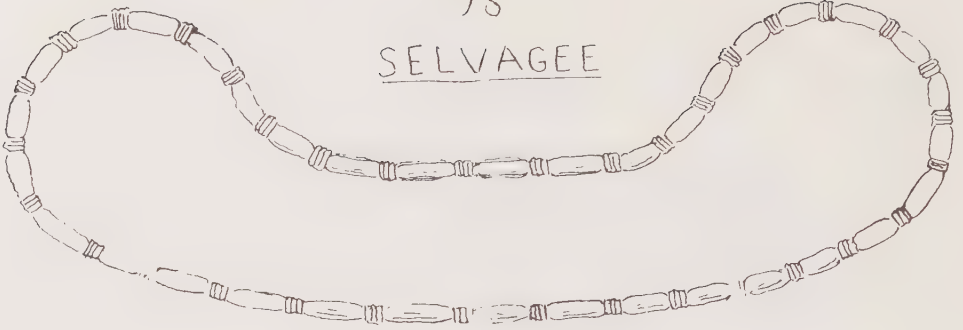
Unlay C to X  
and replace it with M  
& similarly  
unlay O to Y  
and replace it with B

Tie M & C together with an Overhand Knot  
similarly tie together A & N and B & O  
Taper the ends  
and weave them into the strands of the rope



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SELVAGEE

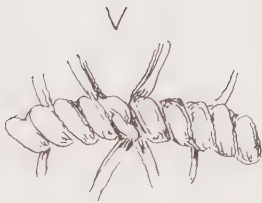
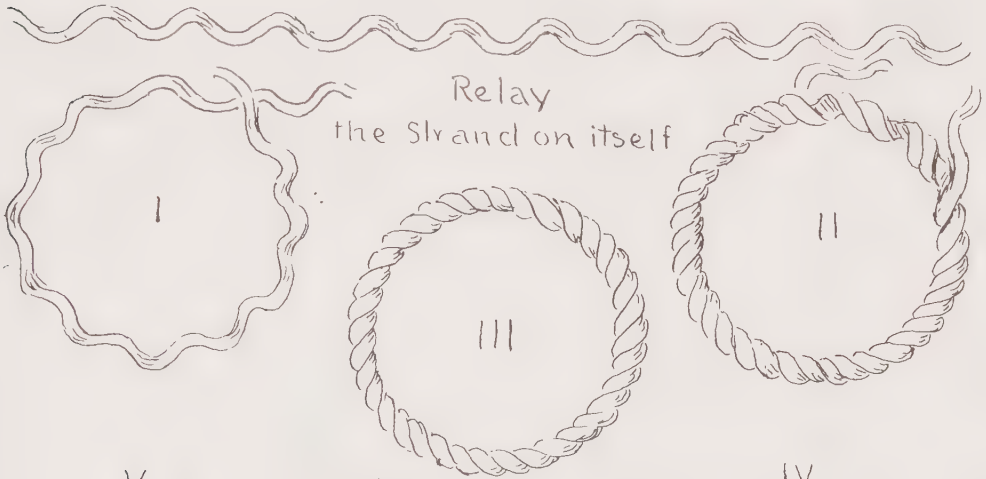


Lifting  
Hitch

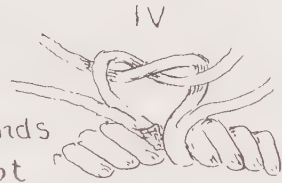


GROMMET

Carefully unlay a single strand of rope twelve times the diameter of the Grommet

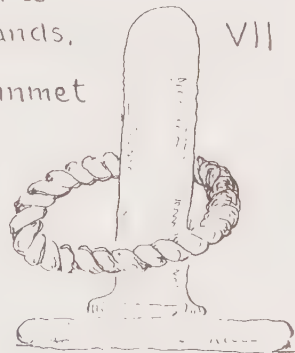
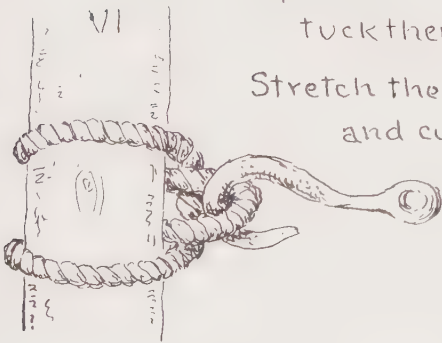


To Finish  
split the ends &  
tie one half of the ends  
in an Overhand Knot  
Fig. IV



Split the ends again and  
tuck them into the strands.

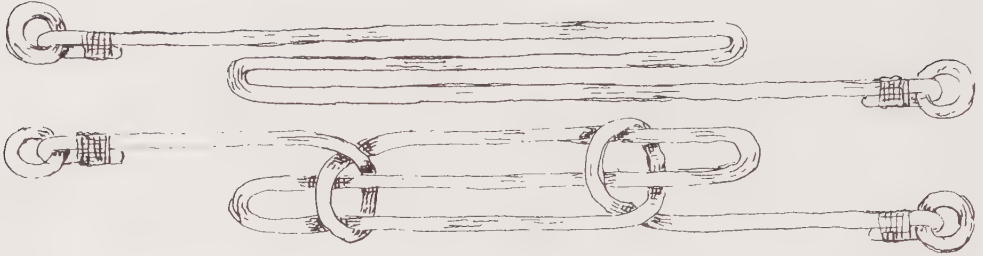
Stretch the finished Grommet  
and cut away the  
ends



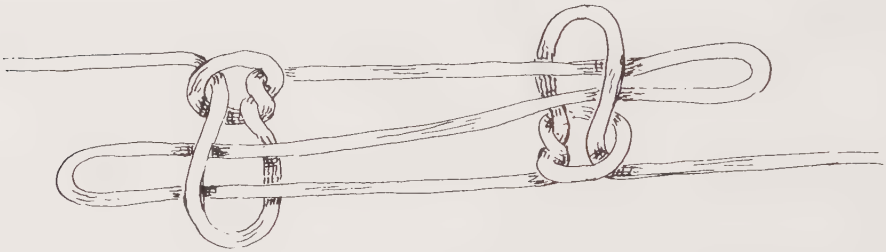
700

## SHEEP SHANK

With both of the ends fast



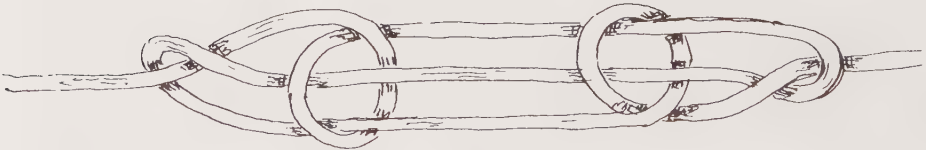
or



With the ends free



or



KNOTS  
OF THE RANCH AND FARM

LASSO



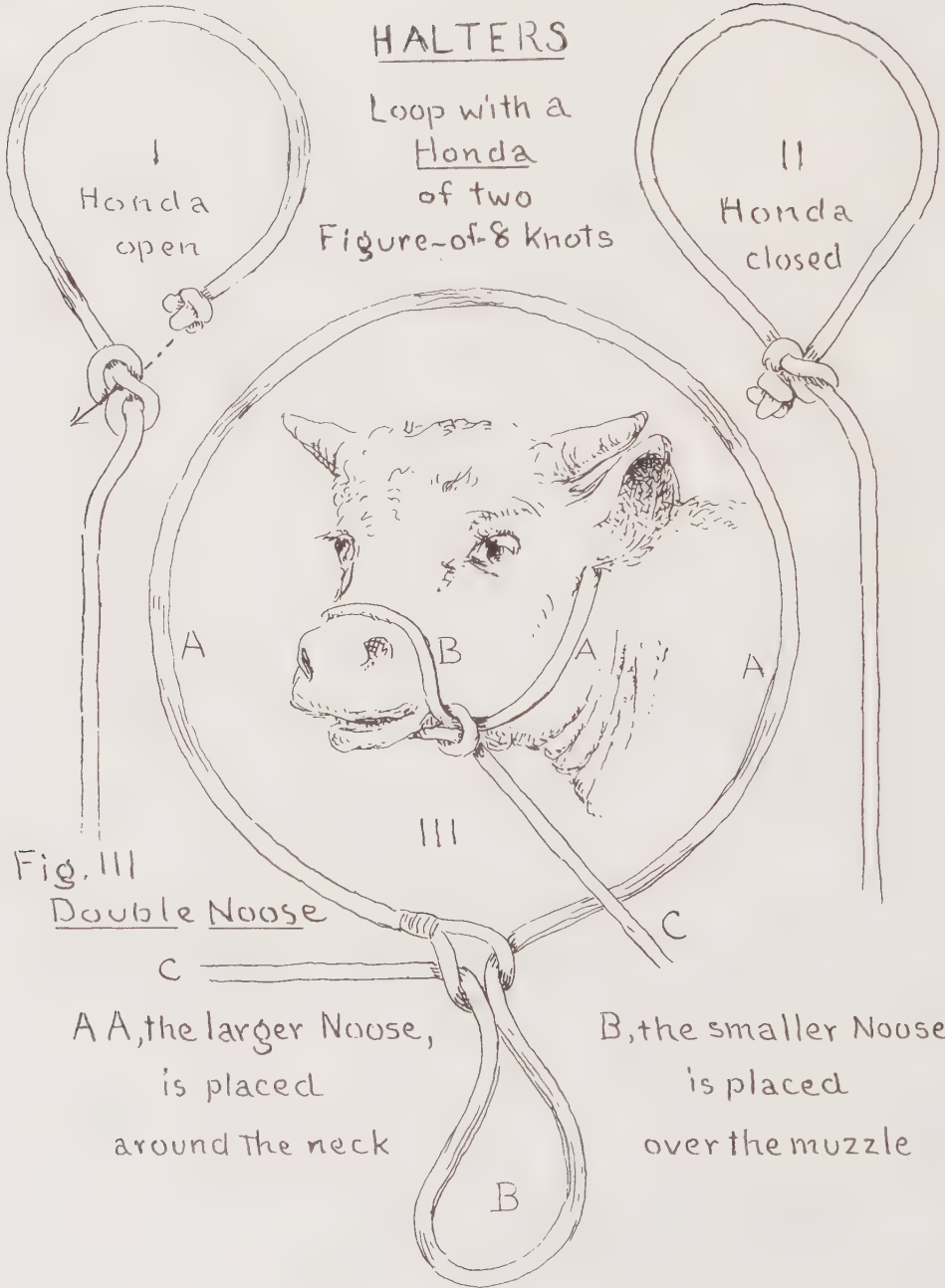
THE HONDA or Hondo

An Eyelettied with two Overhand Knots



# HALTERS

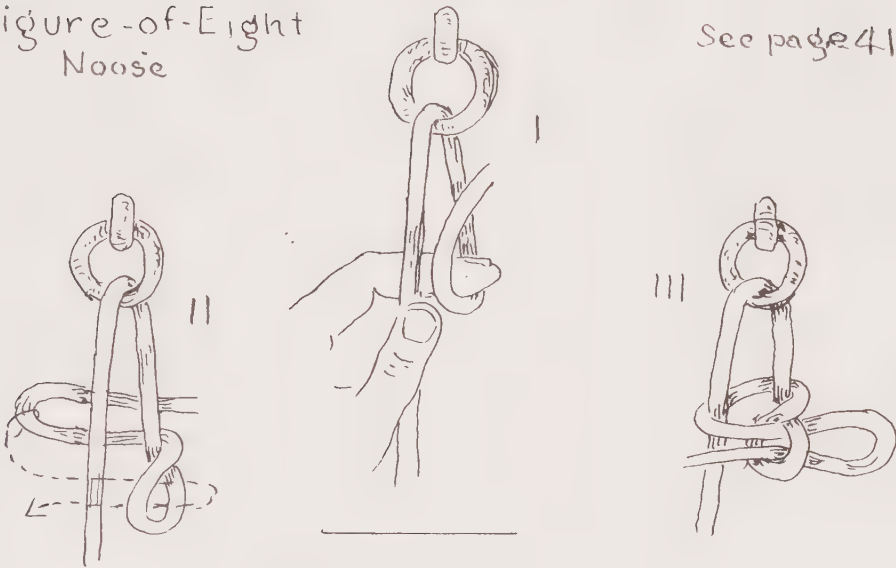
Loop with a  
Honda  
of two  
Figure-of-8 knots



# HALTER and MANGER KNOTS

Figure-of-Eight  
Noose

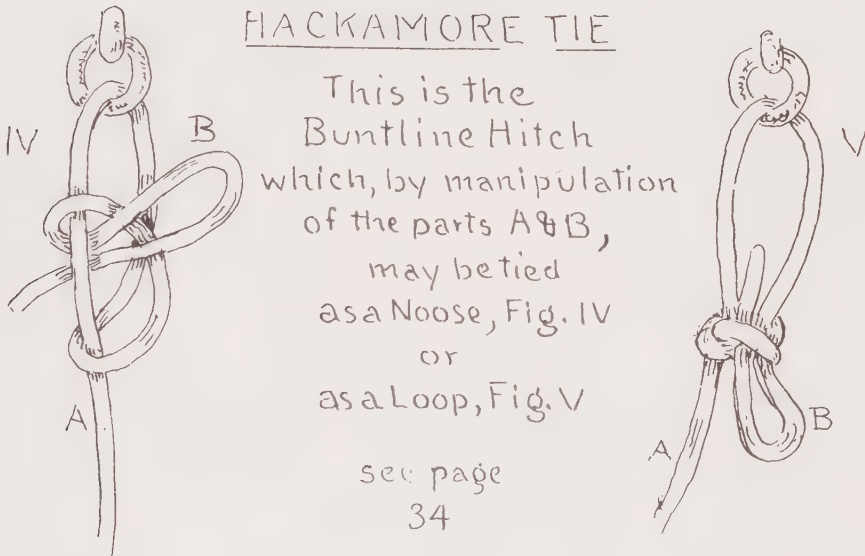
See page 41



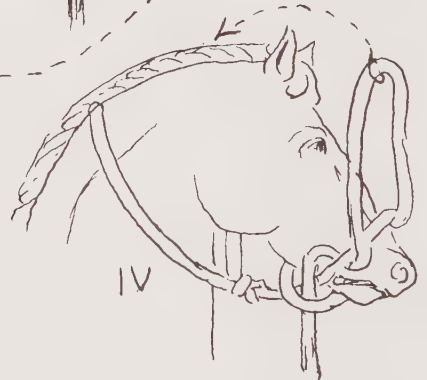
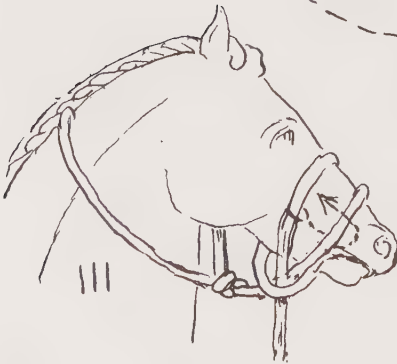
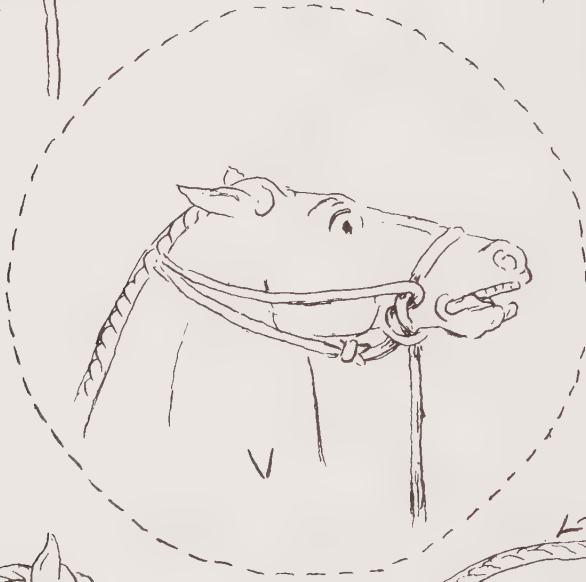
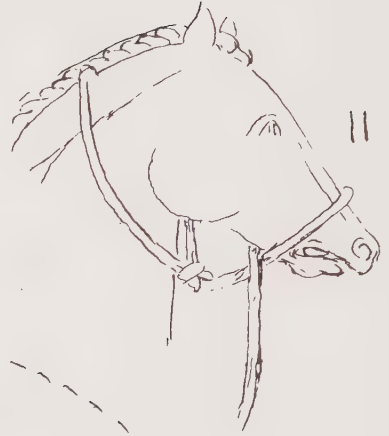
## HACKAMORE TIE

This is the  
Buntline Hitch  
which, by manipulation  
of the parts A & B,  
may be tied  
as a Noose, Fig. IV  
or  
as a Loop, Fig. V

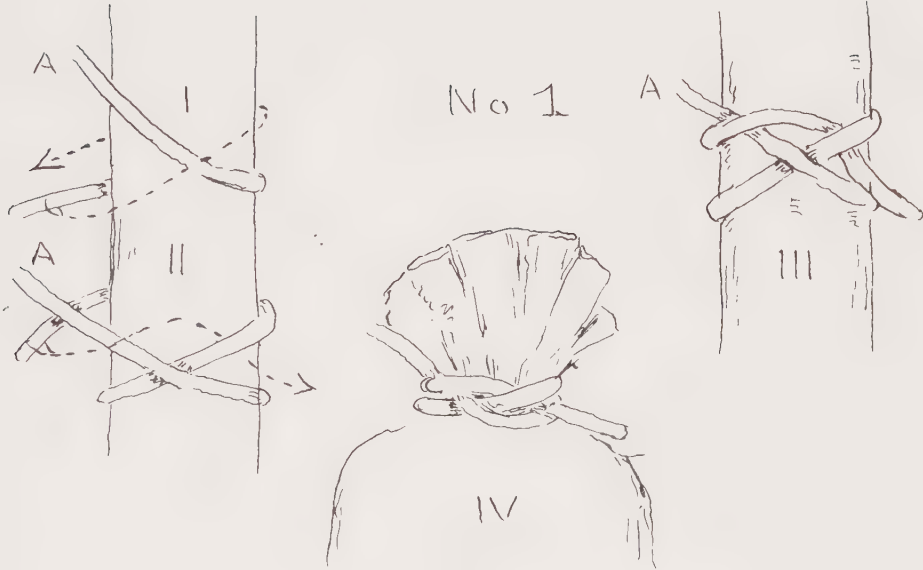
see page  
34



HALTER



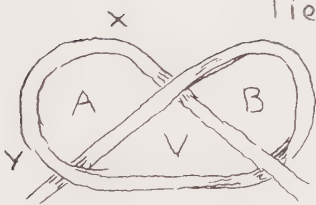
SACK KNOTS



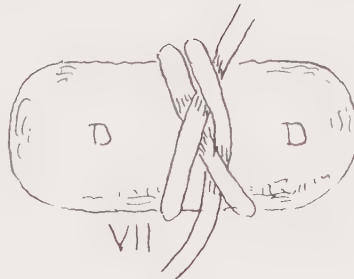
OR

Tie an Overhand Knot

Fig. V

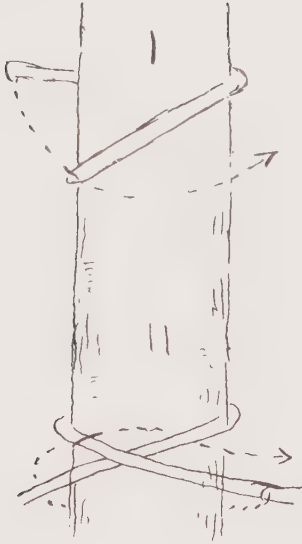


Turn A over  
laying X onto Y  
Fig. VI

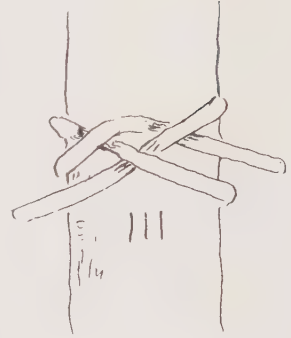


Lay  
A under B  
and slip  
the two loops  
onto D

SACK KNOTS



No. 2  
Millers Knot

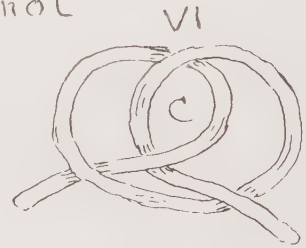
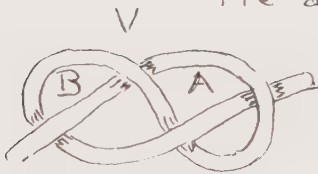


See  
page 12



OR

Tie a Figure of 8 Knot  
Fig. V



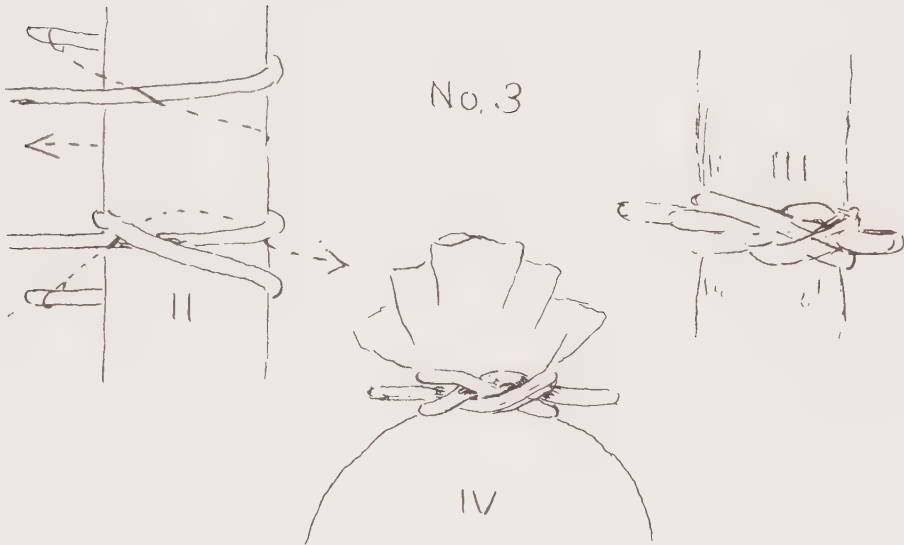
Lay the loop A  
onto B  
to  
form the  
Fig VI



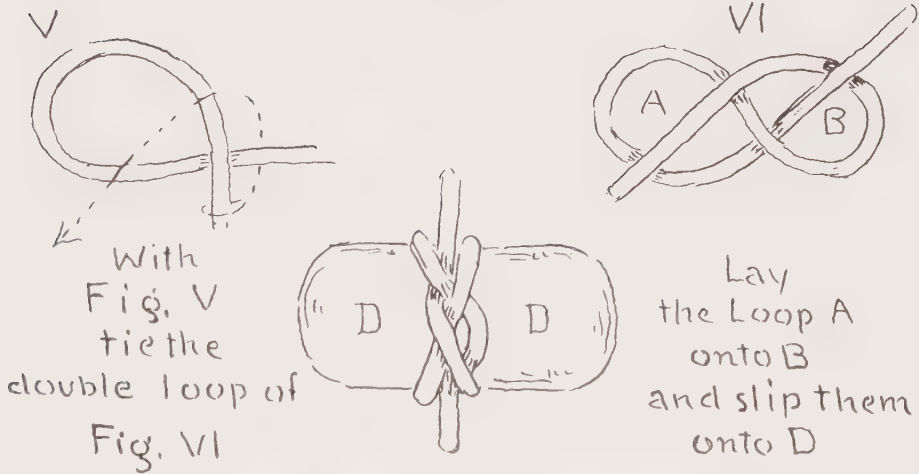
Slide  
the loop C  
onto D



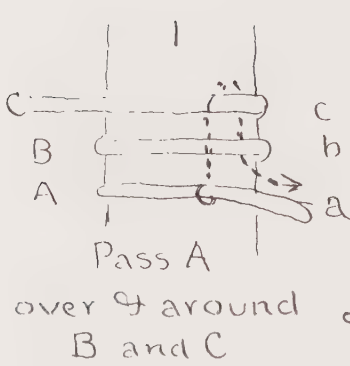
SACK KNOTS



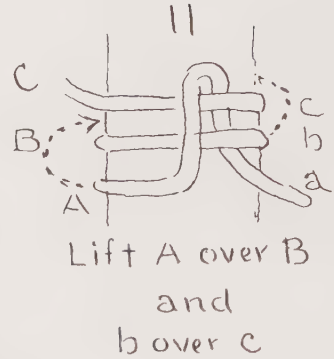
OR



SACK KNOTS



No. 4



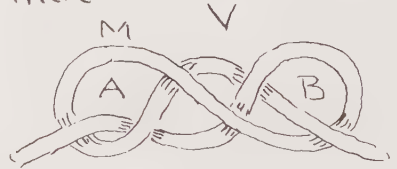
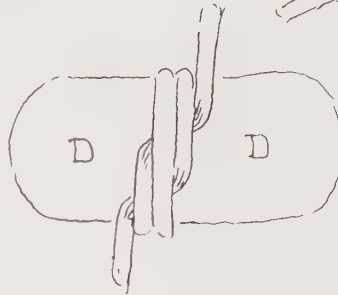
OR

Tie a Blood Knot

Fig. IV



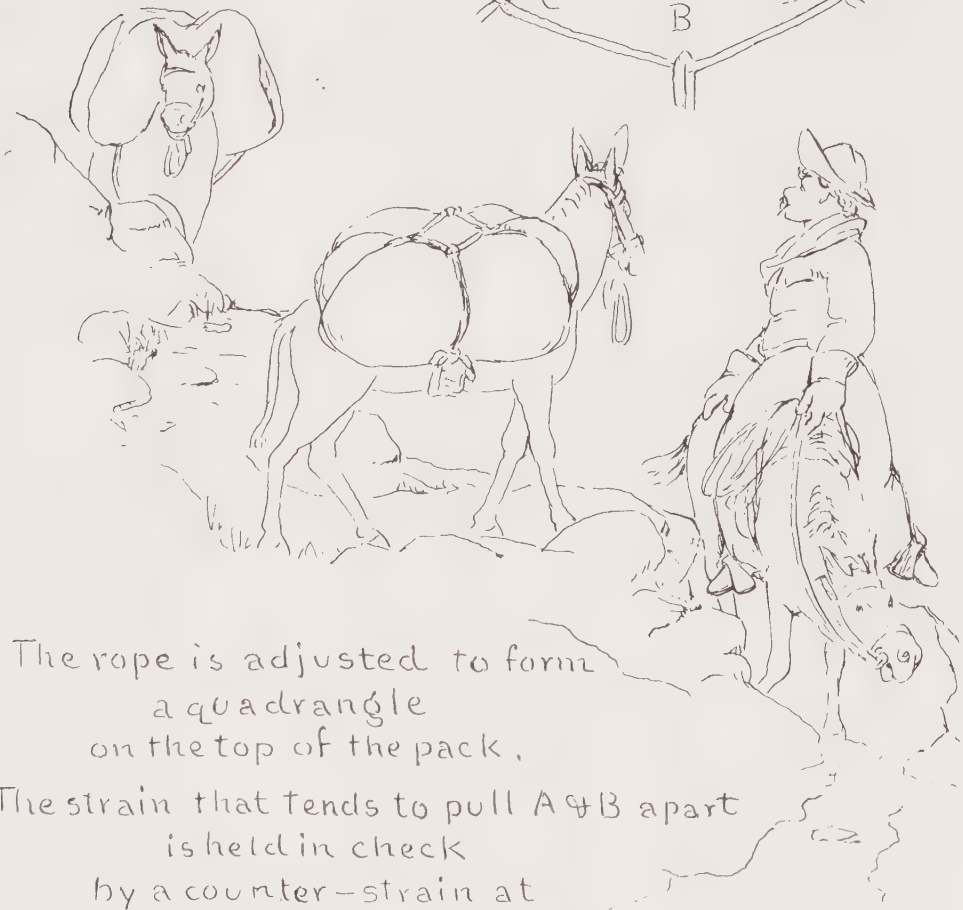
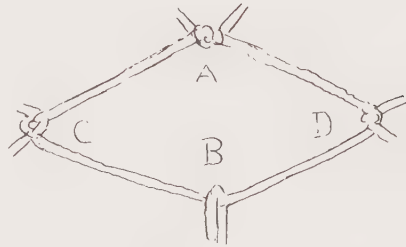
Turn M over  
to form  
two loops  
A & B  
Fig. V



Lay  
the loop A  
under B  
and  
slip both onto  
D

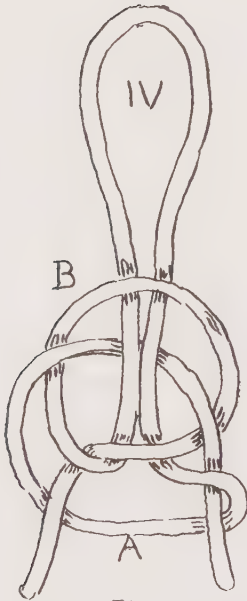
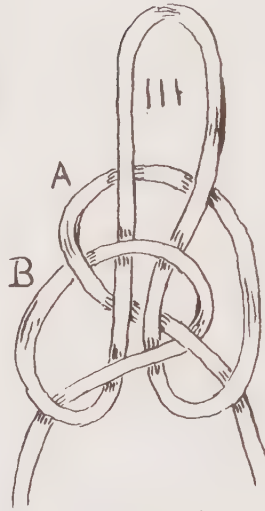
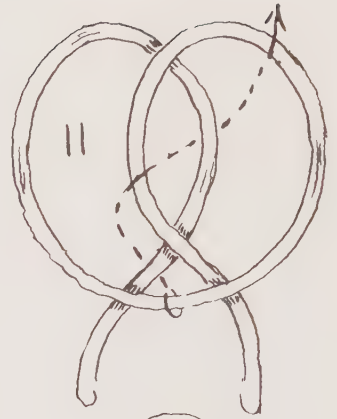
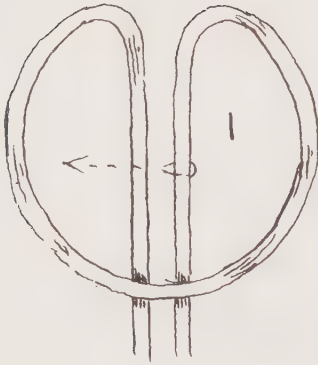
DIAMOND HITCH

A compensating device for  
securing the pack  
on a horse



The rope is adjusted to form  
a quadrangle  
on the top of the pack.

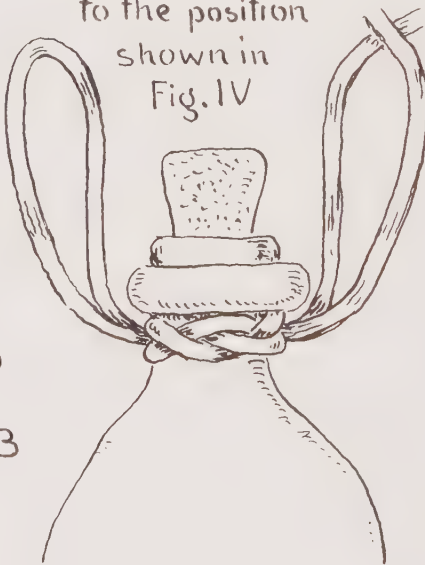
The strain that tends to pull A & B apart  
is held in check  
by a counter-strain at  
the points  
C & D

JAR SLING

In Fig. III  
pass the loop A down  
to the position  
shown in  
Fig. IV



In Fig IV  
pass the loop B  
down to  
the position of B  
in  
Fig. V



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# SLINGS

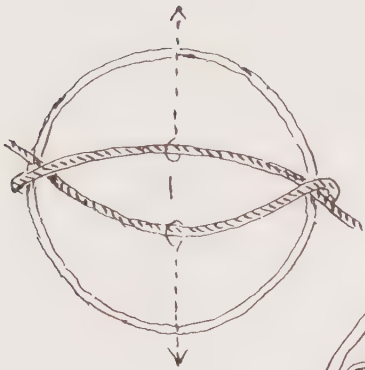
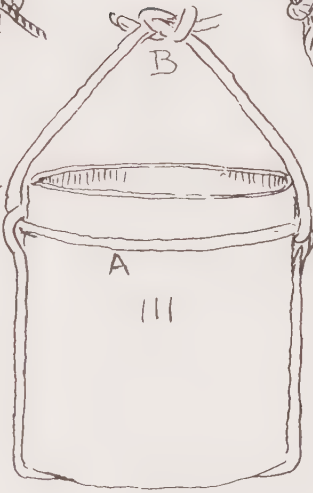


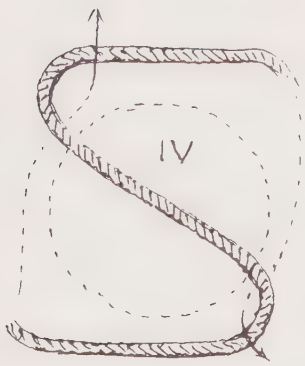
Fig. I  
Tie an  
Overhand Knot  
vertically  
around the can

Can



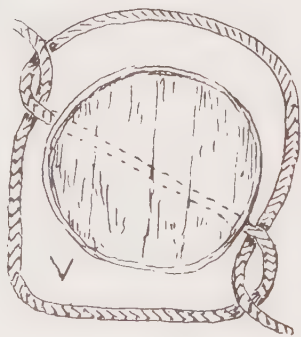
Spread  
the knot apart  
and fit it  
around the top  
of the can  
A-Fig. III  
Tie the ends  
together-B, Fig III

Arrange the rope  
as in  
Fig. IV



Barrel

Set the barrel  
on the rope  
Fig. V

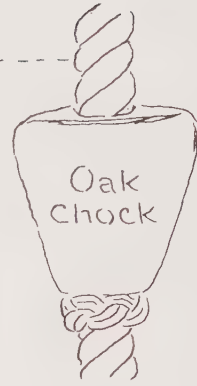
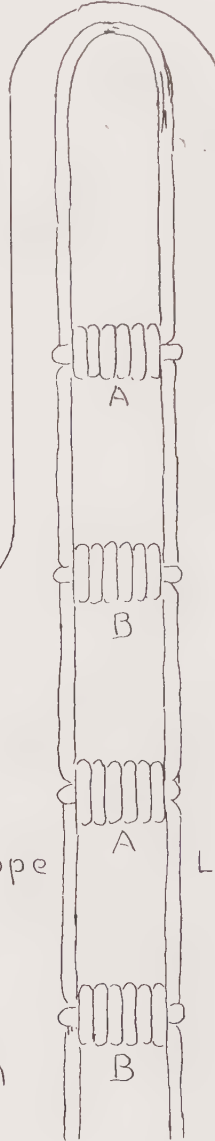


# LADDERS

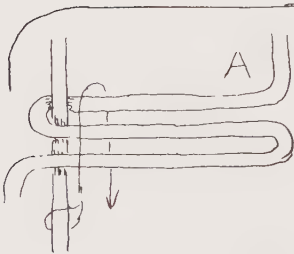
-----Single-rope Ladder-----



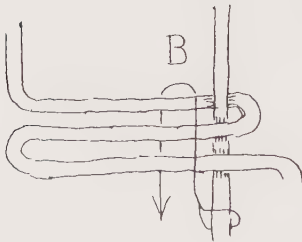
The Chocks are stopped  
by a  
4-strand Diamond - Fig. II



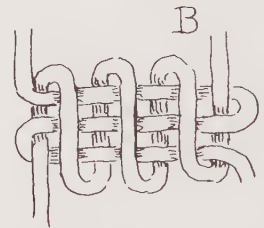
Pass 2 lines A-B, C-D  
through the Rope



All-rope

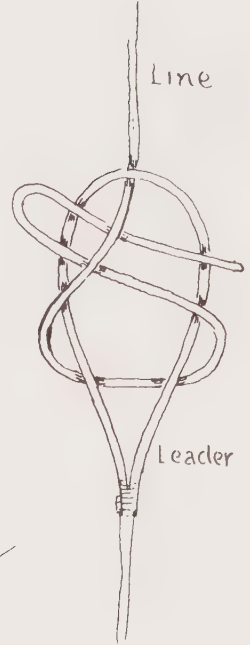
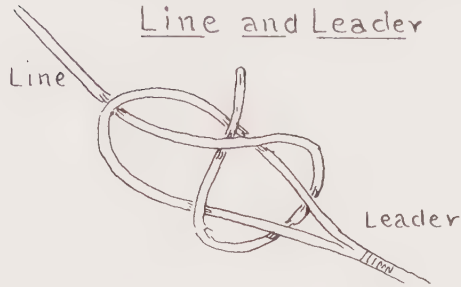


Ladder

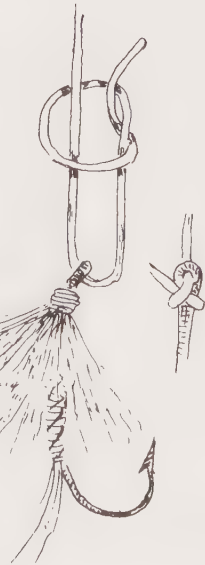
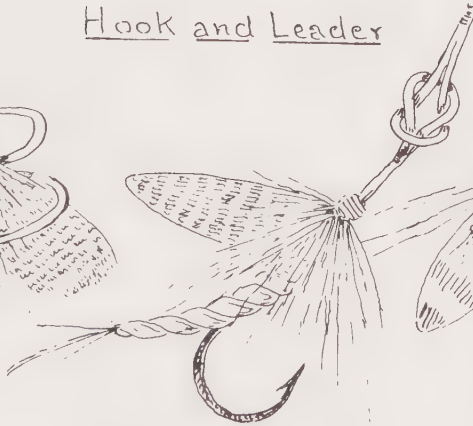


# ANGLER'S KNOTS

## Line and Leader

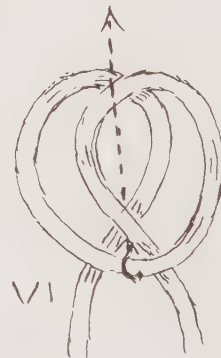
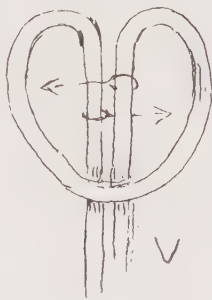
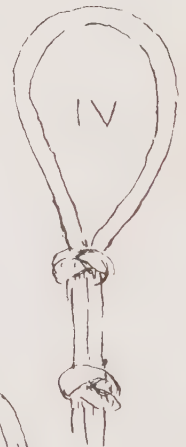
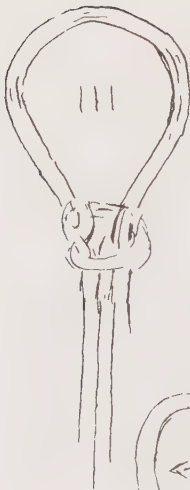


## Hook and Leader



TYING LEADERSBarrel  
KnotI  
Water KnotWater Loop

May be tied as in Figs. III, IV, VII,  
or as in Figs. V, VI, VII



For Angler's Loop see page 43



TYING FLIES

A simple and effective  
artificial fly  
may be tied with a fish hook,  
a length of colored silk,  
and a hackle from the neck of a cock.



Tying on the hackle

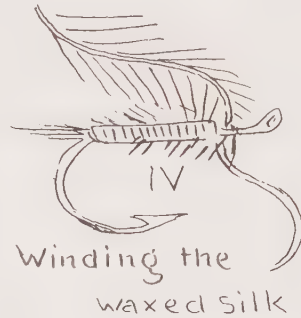
Winding the  
waxed silk

Fig. V

A few close turns  
of the hackle

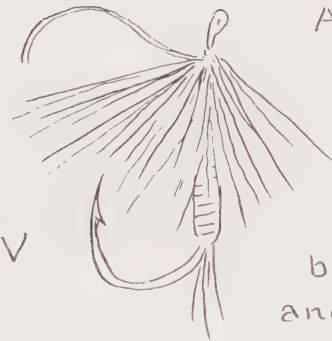


Fig VI

The silk  
secures the  
butt of the hackle  
and is whipped onto  
the hook



to form the head of the fly - A drop of varnish on the head

# FISHERMAN'S NET



Fig. I - the Loop

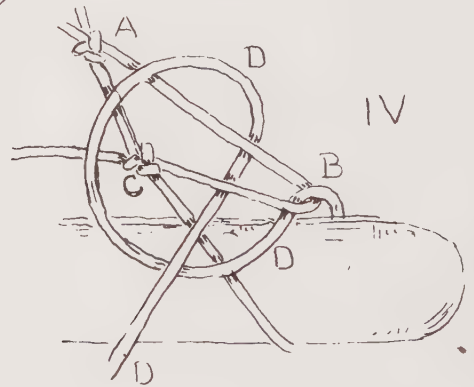
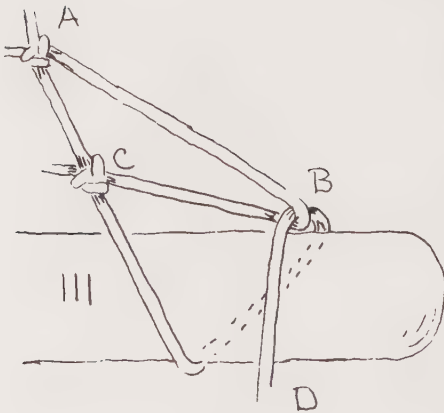
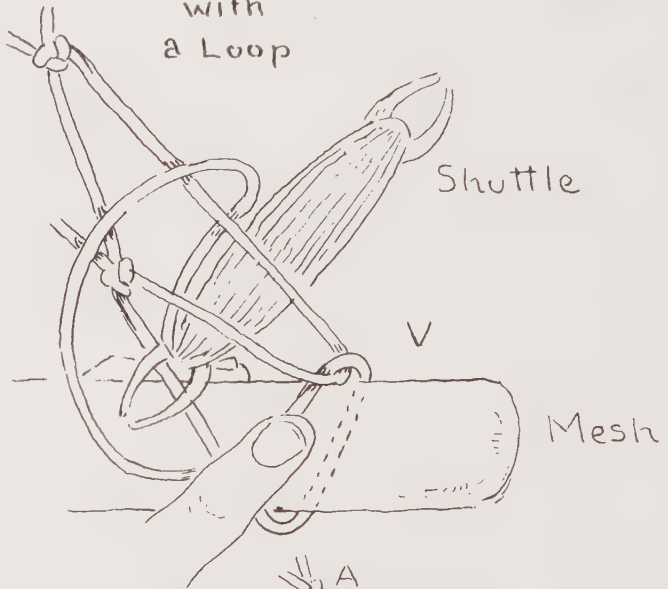
Fig. II Loop and Half Hitch



The Knot  
is the same as  
the Sheet Bend, Bowline &c.  
It is a Half Hitch  
combined  
with  
a Loop

Fig. III  
ABC  
represents the  
Loop

Fig. IV  
The end D  
ties  
the Half Hitch



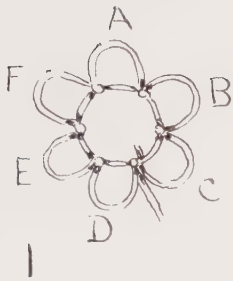
CIRCULAR NET

Fig. I  
Tie 6 loops  
on a centre loop

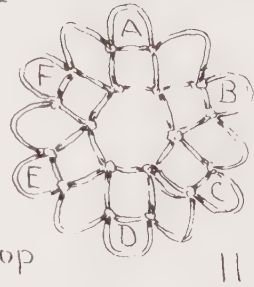


Fig II  
Tie 2 knots on each loop

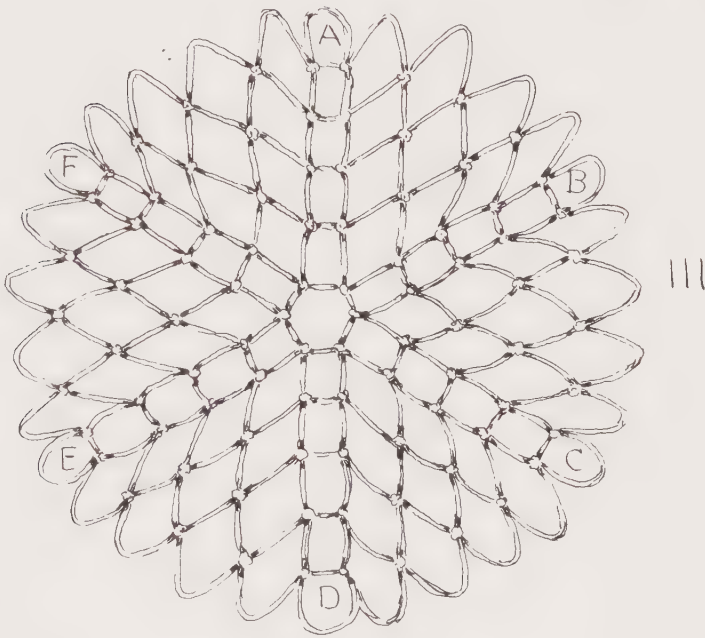


Fig III

The diameter of the net  
increases

by tying 2 knots  
on each of the loops that lie on  
the three lines  
AD-BE-CF

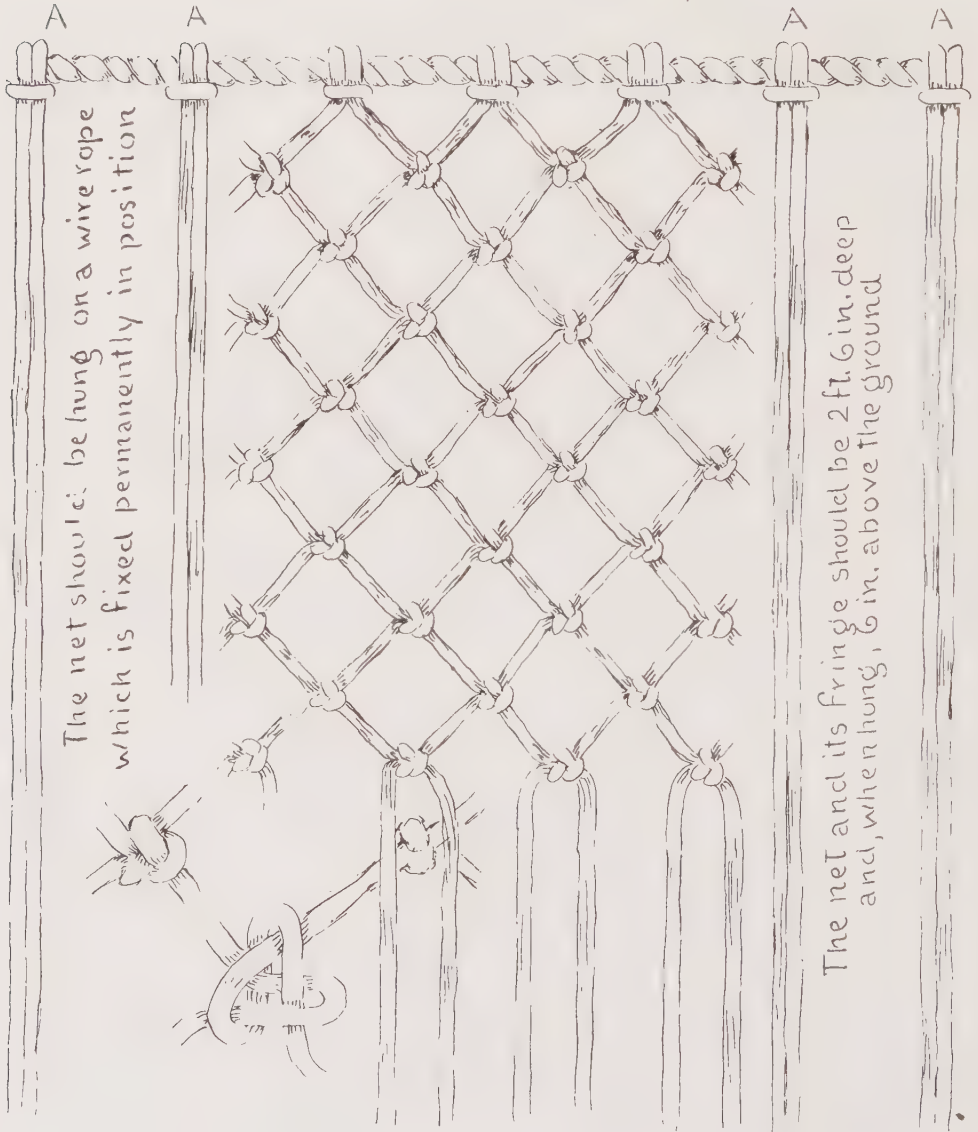


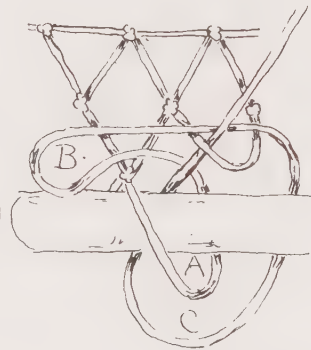
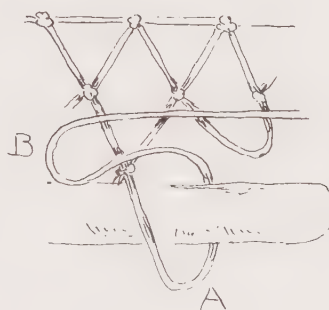
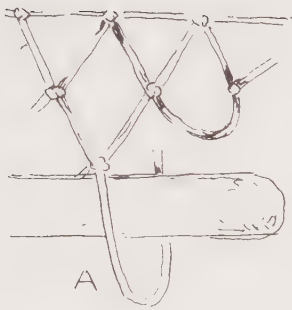
This net can be  
tied

# TENNIS NET

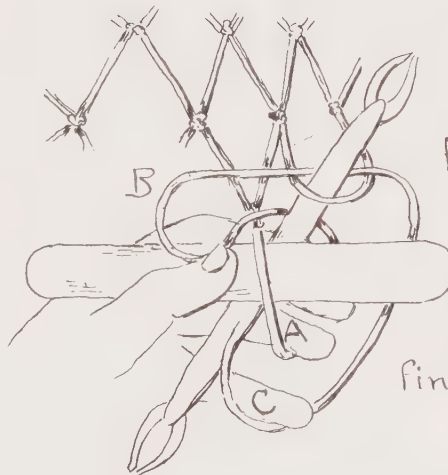
without mesh or  
shuttle

Tied with short lines - A, A



NETTING

Tied with 3 loops  
Loop A  
 around 3 fingers  
Loop B  
 under left thumb  
Loop C  
 around the little  
 finger



To draw the  
 knot  
 together,  
 first release  
loop B  
 then  
loop A  
 and  
 finally loop C

# TYING PACKAGES

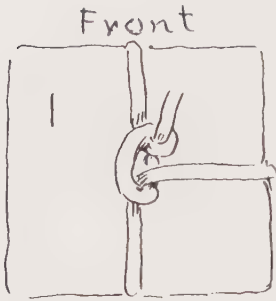


Fig. I  
Begin with the  
Packers' Noose

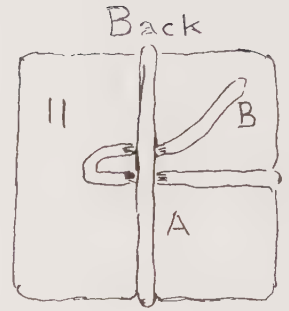
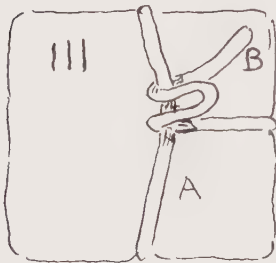


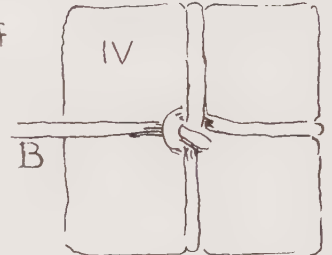
Fig. II

Pass the bight of  
the line under  
the strand  
A



Back

Fig. III  
With the bight  
draw the strand A taut

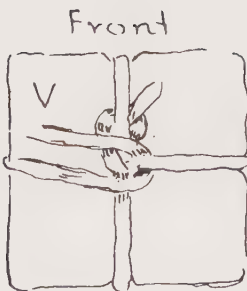


Back

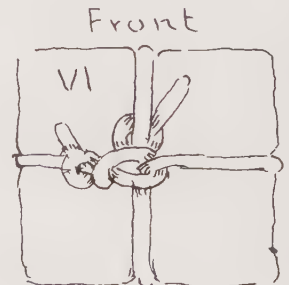
Fig. IV

Pass the end B through the bight and  
draw the knot taut

Figs. V and VI



Finish  
with two or three  
Half  
Hitches



# TYING PACKAGES

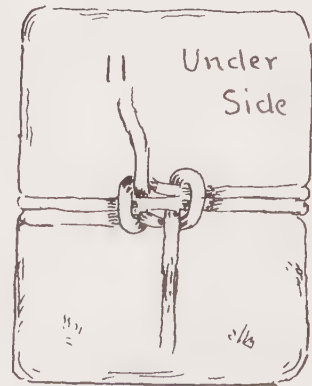
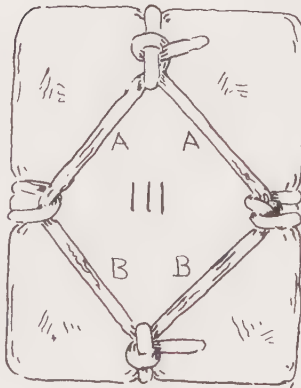
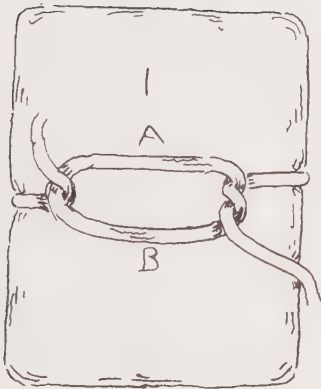
Fig 1

Introduced here as a not-too-difficult puzzle

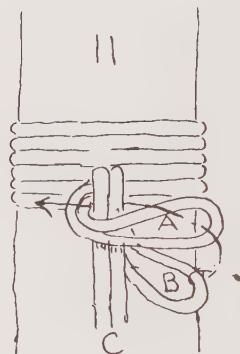
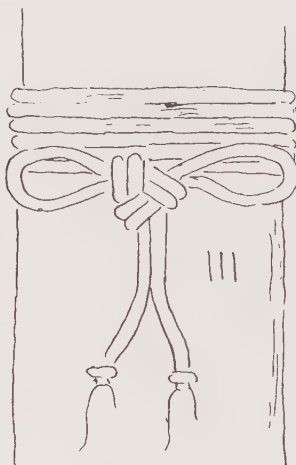
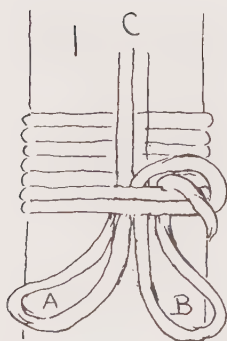
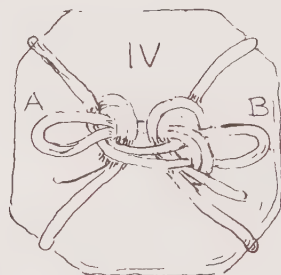
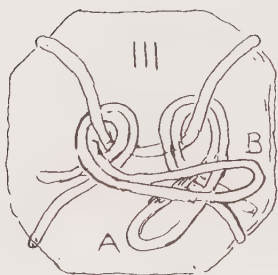
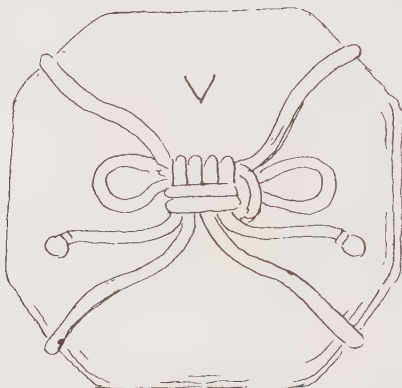
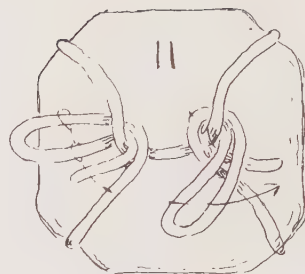
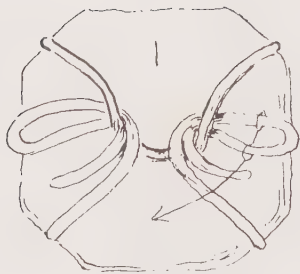
{ Tie a 4-strand package  
with a single line, the begin-  
ning and the end not shown }



## Diamond Tie



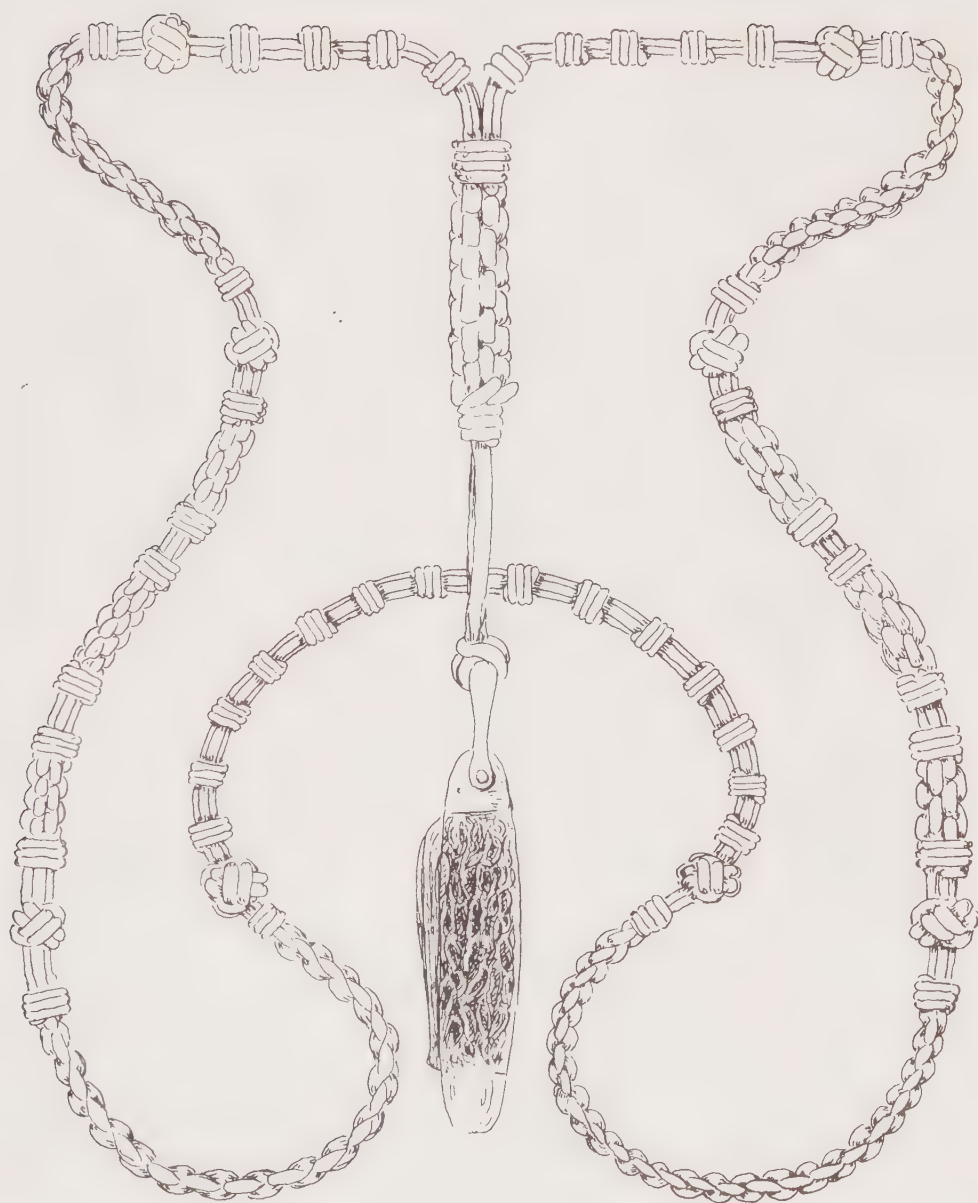
JAPANESE  
KNOTS





123

KNIFE - LANYARD



WATCH FOB

I

Begin with a doubled line

A - Fig. I

Add another doubled line

B - Fig. II.



II



III

Wall the four strands  
together

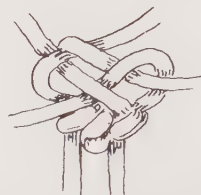
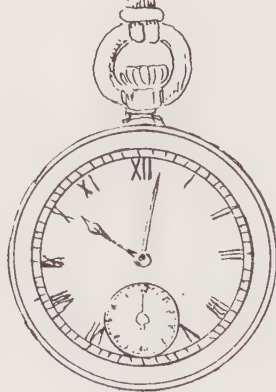


V

Finish with a  
4-strand Double  
Diamond



VII



IV

Begin the Crown Braid  
page 81



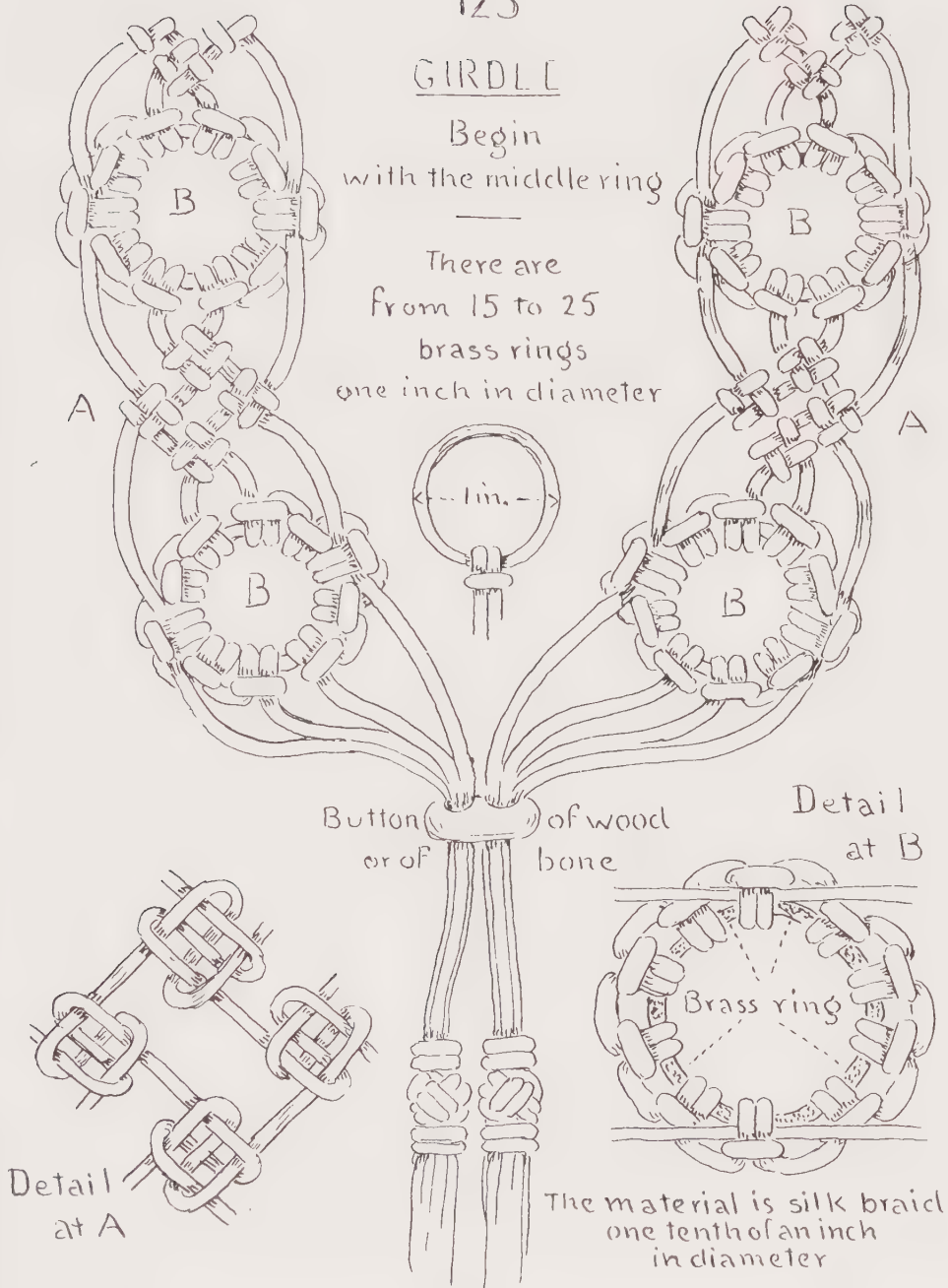
Top

Crown the ends  
and pass them down  
through the knot and  
cut them off

GIRDLE

Begin  
with the middle ring

There are  
from 15 to 25  
brass rings  
one inch in diameter



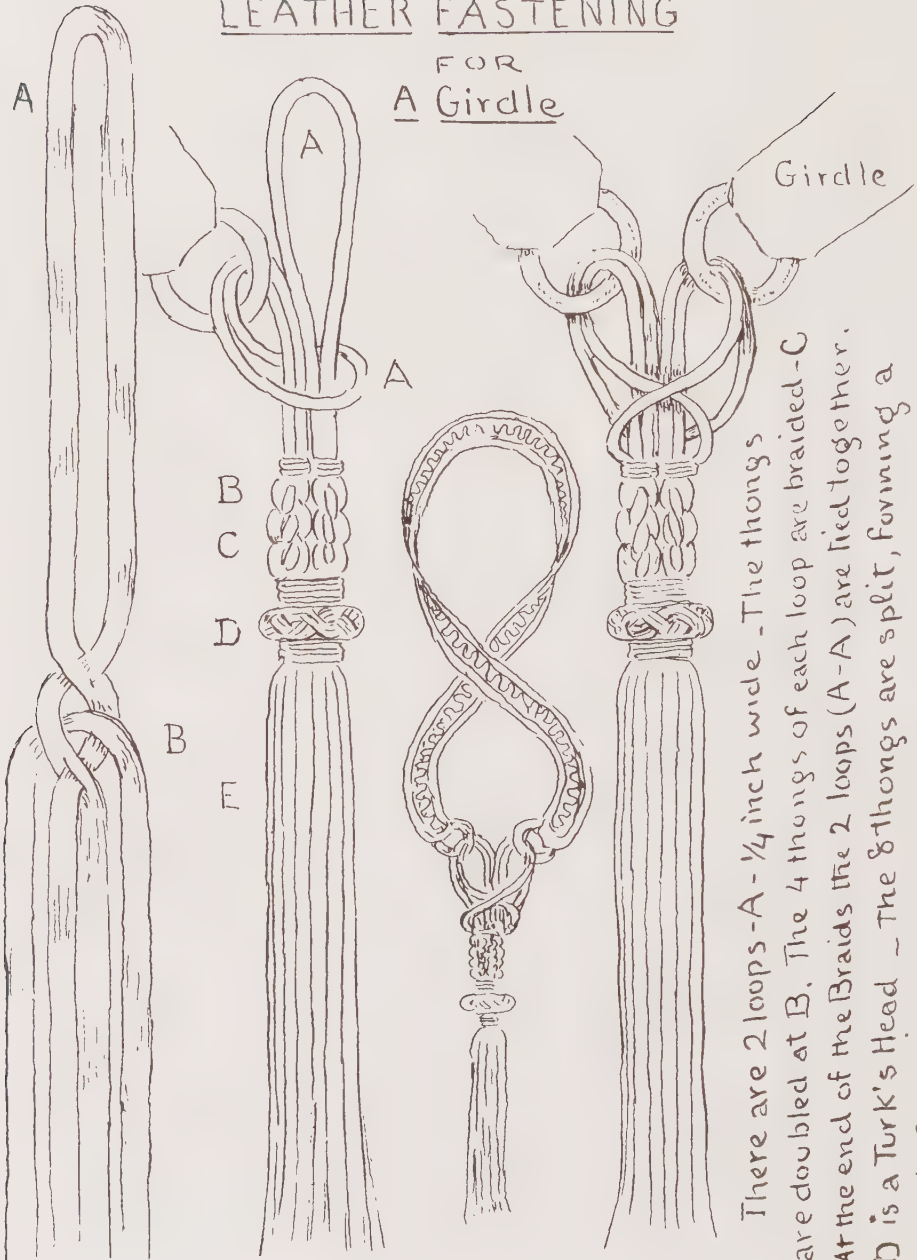
Button of wood  
or of bone

Detail  
at B

Brass ring

The material is silk braid  
one tenth of an inch  
in diameter

Detail  
at A

LEATHER FASTENINGFOR  
A Girdle

There are 2 loops - A -  $\frac{1}{4}$  inch wide. The thongs are doubled at B. The 4 thongs of each loop are braided - C. At the end of the Braids the 2 loops (A-A) are tied together. D is a Turk's Head. The 8 thongs are split, forming a tassel of 16 strands.

# LEATHER BELT and BUCKLE

Fig. I  
A - Part of Belt  
slit into  
three Strands - See page 86

Fig. I  
B - Two iron or  
brass rings

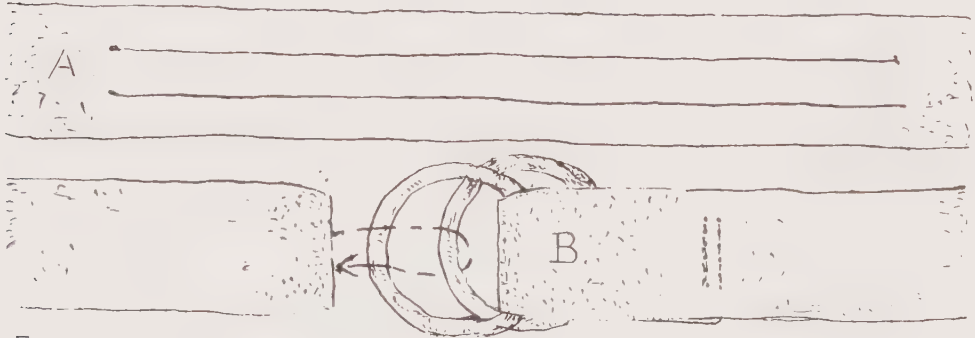


Fig II-A - The strands braided - B - The buckle fastened

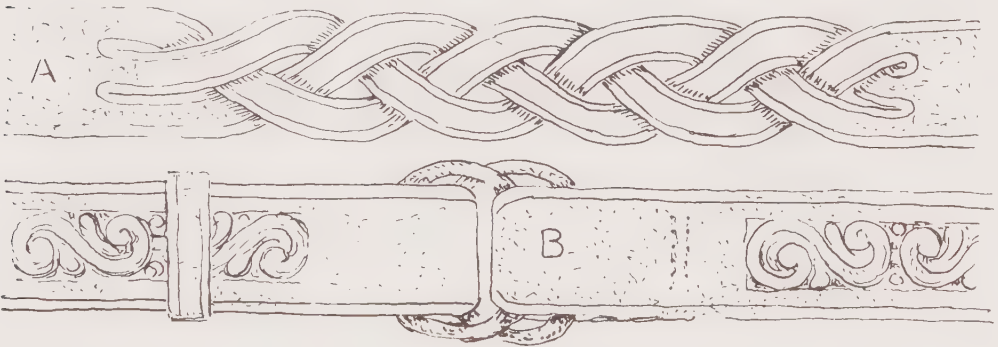
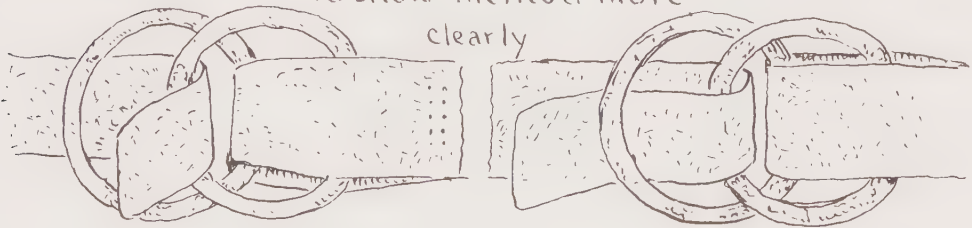
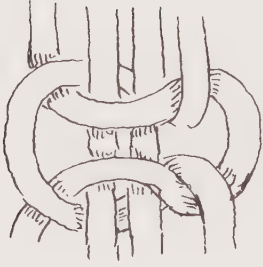


Fig. III - The inside of Buckle - The rings enlarged  
to show method more  
clearly



## MACRAME' KNOTS

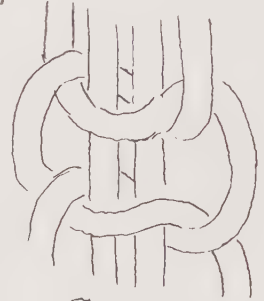
These are  
The Square Knot, the Half Hitch and the Granny  
tied around  
one or more idle lines  
drawn taut



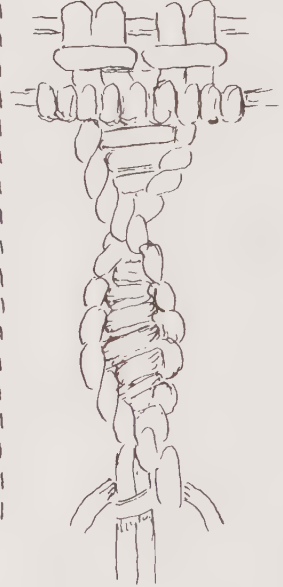
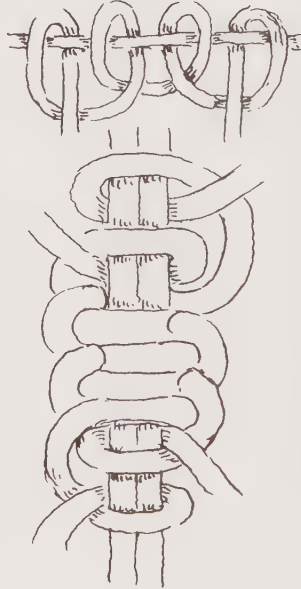
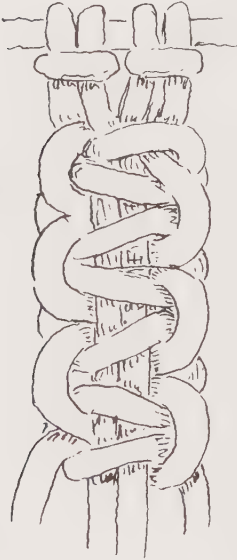
Square Knot

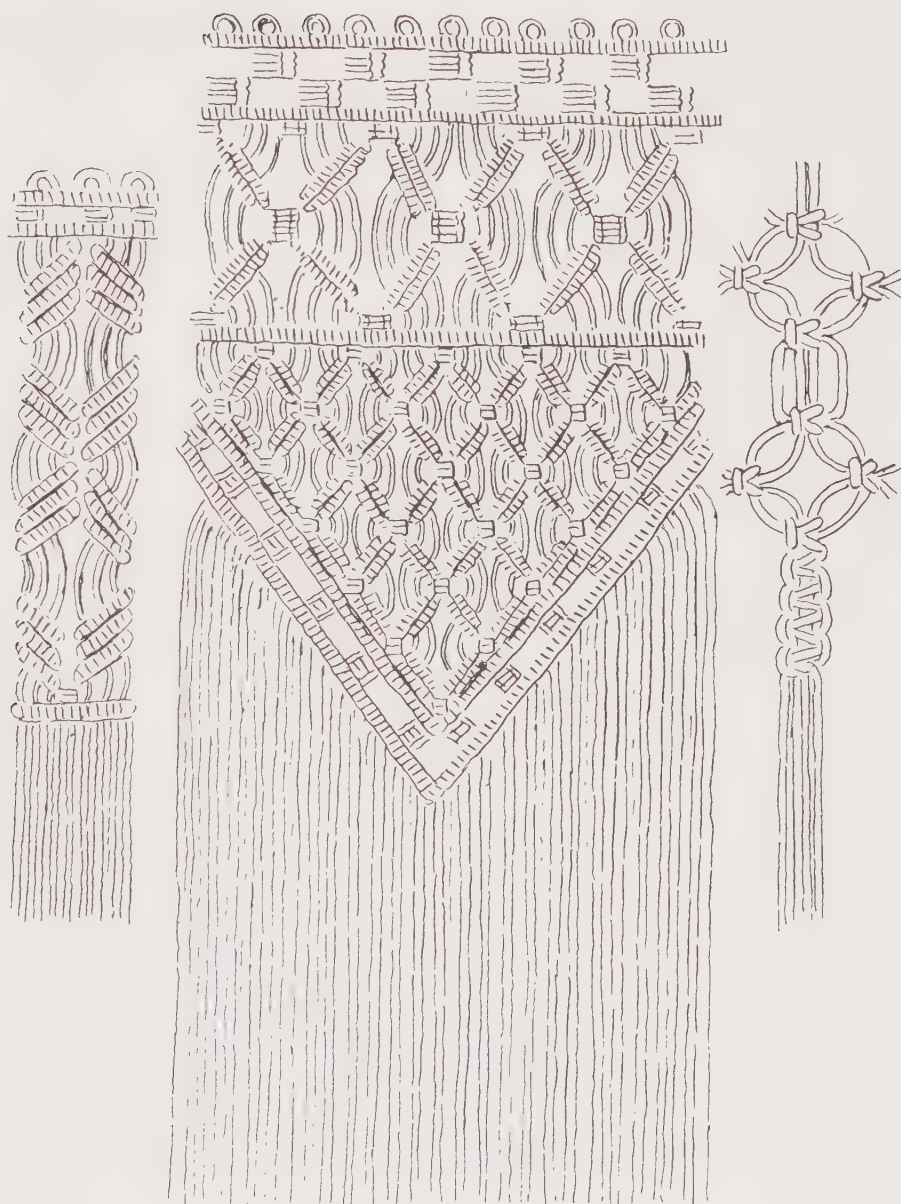


Half Hitch



Granny



MACRAME KNOTS



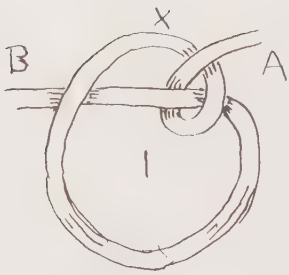
TATTING LOOP

Fig. I  
A Half Hitch  
of the end A  
around the end B

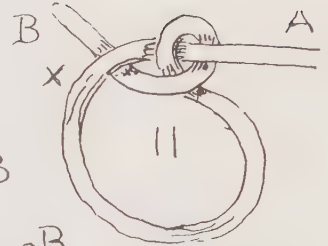
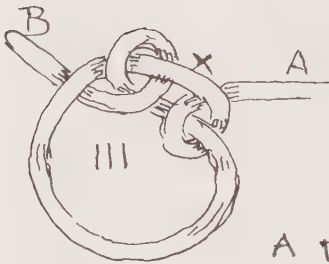


Fig. II  
By pulling,  
x & A



B becomes a Half Hitch  
around A

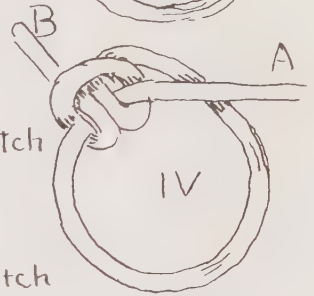
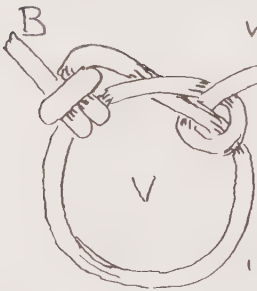
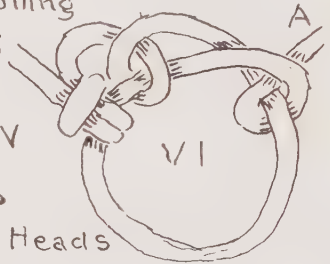


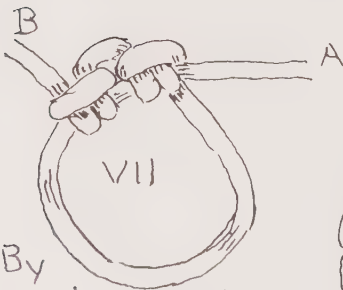
Fig. III  
A ties a second Half Hitch  
which is also upset by pulling



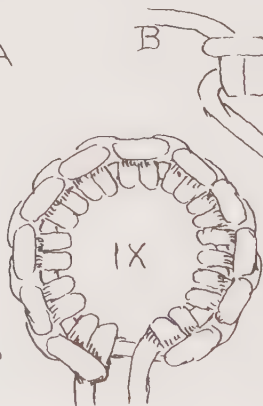
A x and A B  
These 2 knols form  
a Lark's Head Fig. IV



The Tatting Loop  
is a row of such Lark's Heads



By  
pulling A, Fig. VIII  
The Lark's Heads  
are drawn



upon a  
running  
line A  
VIII  
into  
the form  
of  
a loop IX



TATTING

Insertion



Fig. II

Round Braid

See page 77



Lace

Fig I Loop

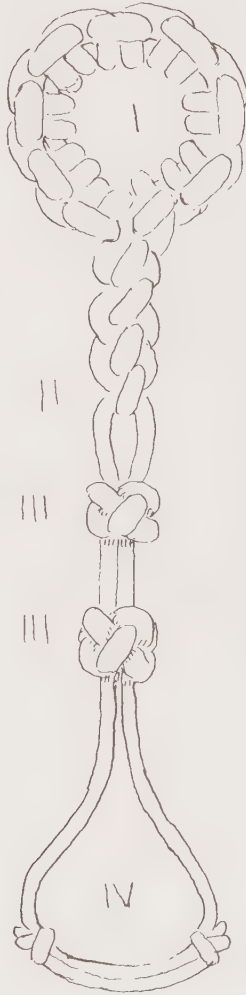


Fig. IV

Water Knot

Insertion

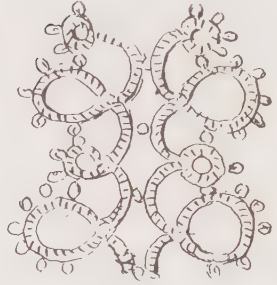
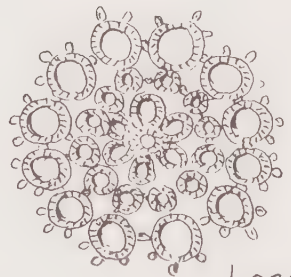
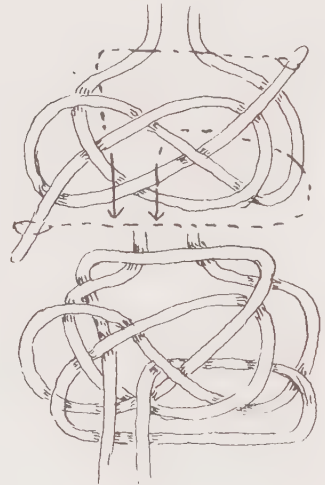
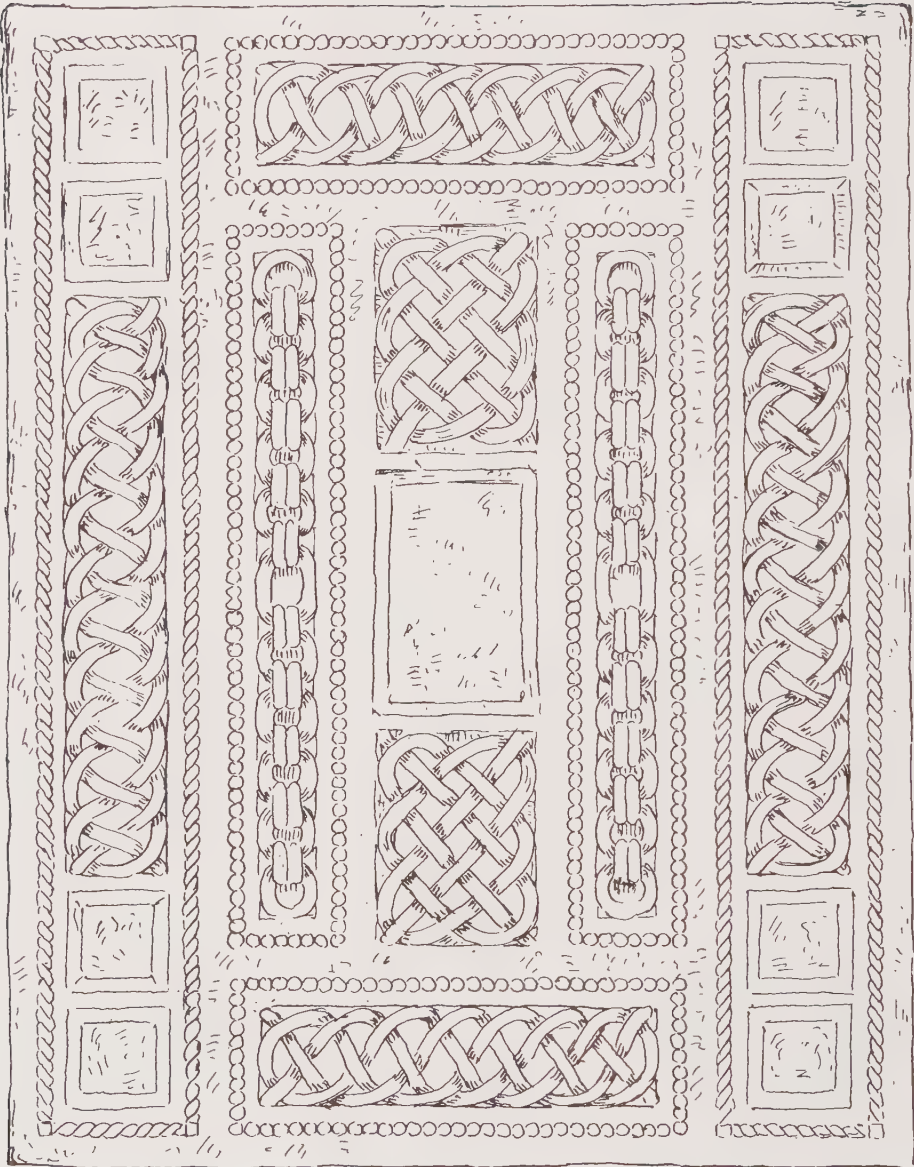


Fig III

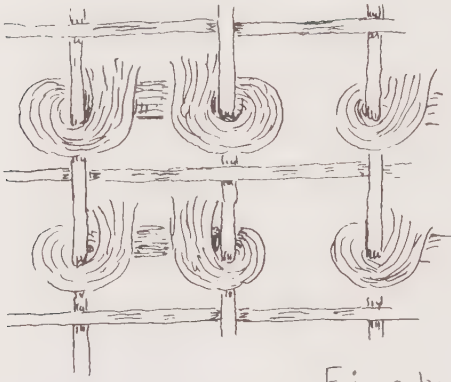
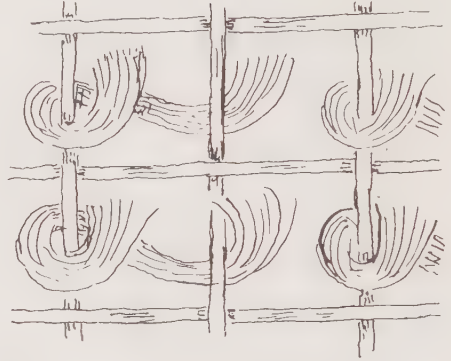
Diamond Knot



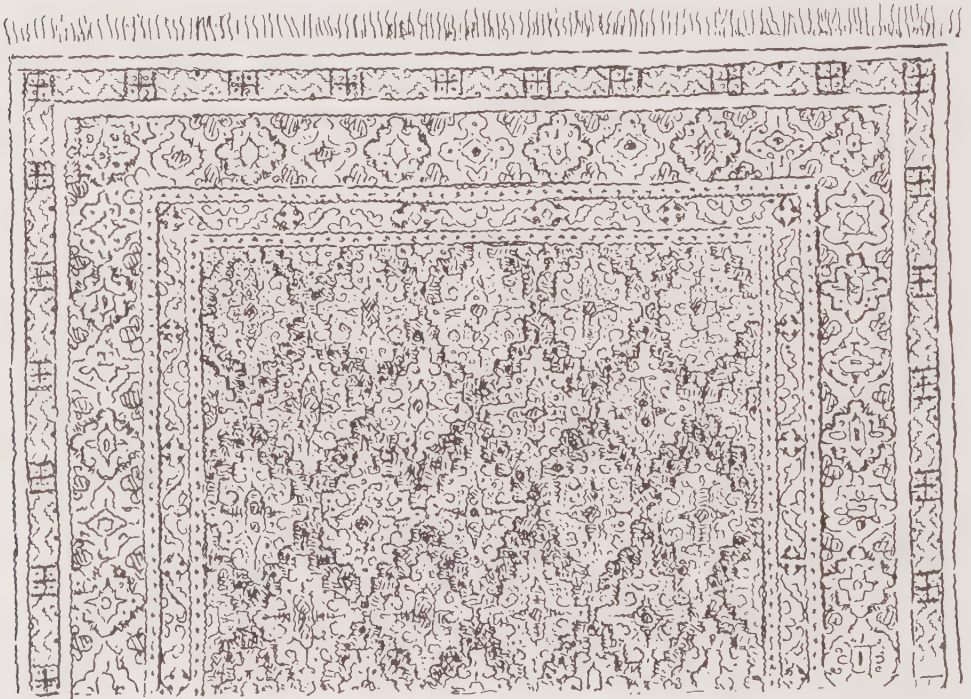
Lace





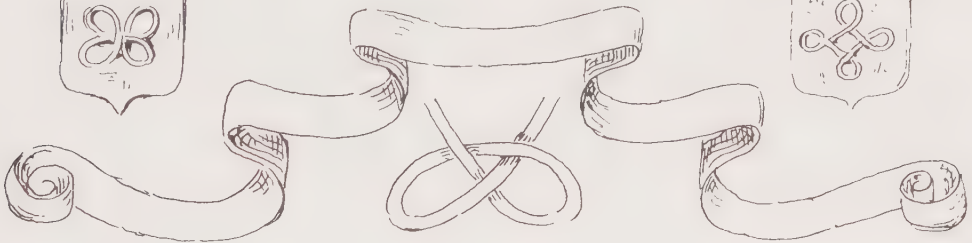
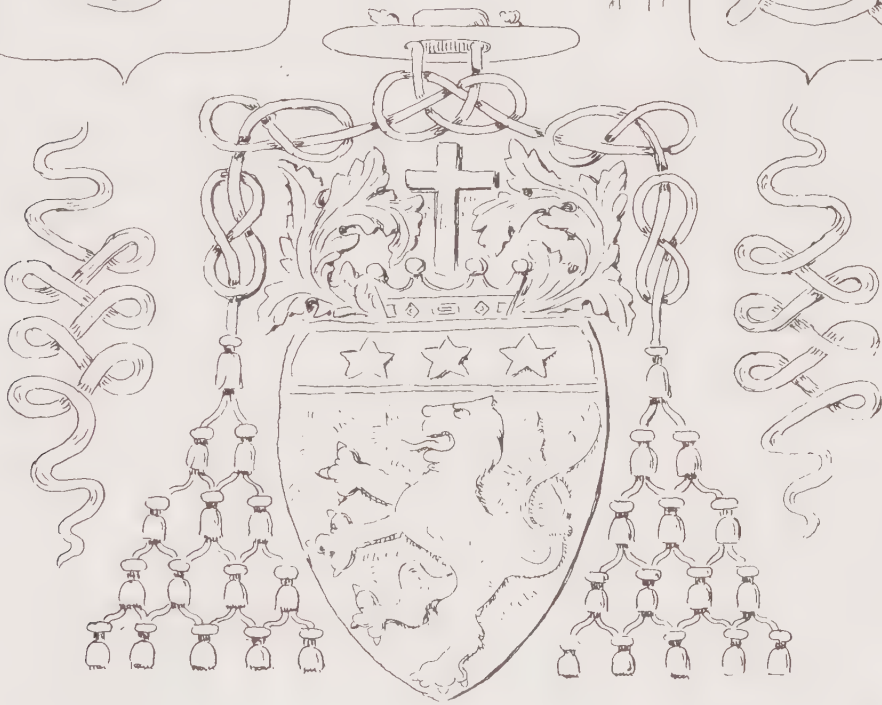
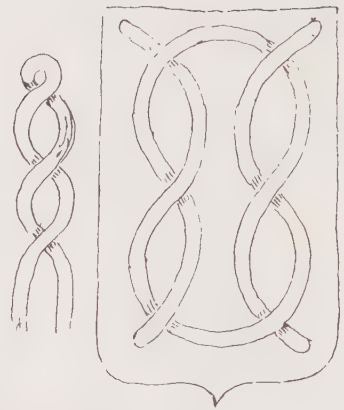
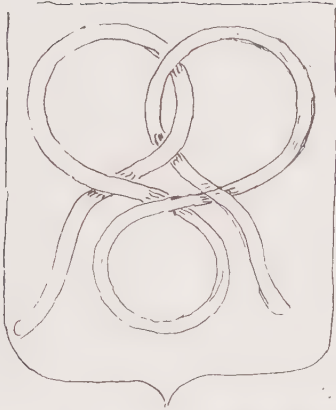
ORIENTAL RUGSTurkish KnotPersian Knot

Five hundred Knots  
to the square inch are not unusual

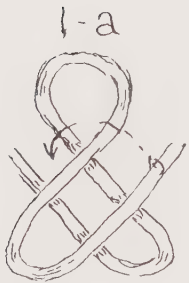




KNOTS  
IN  
HERALDRY



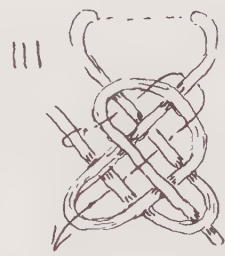
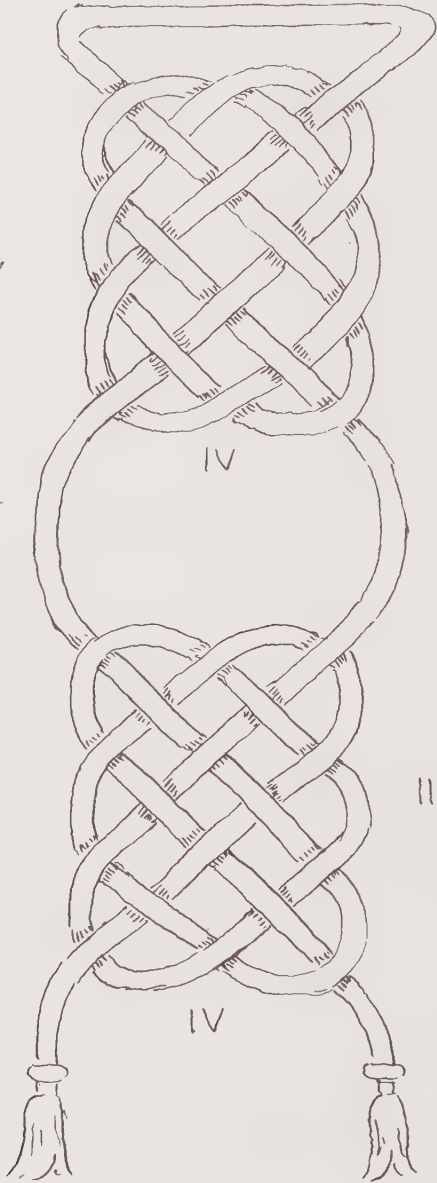
CHINESE KNOT

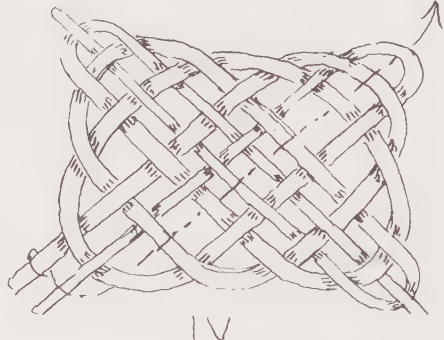
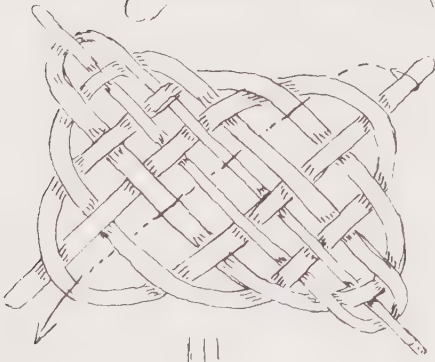
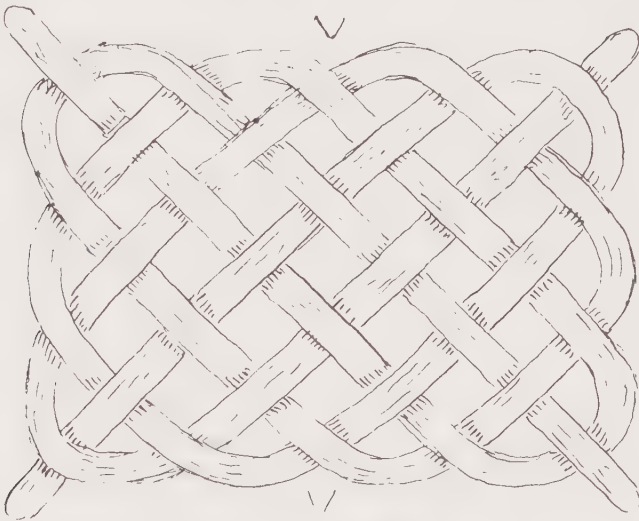
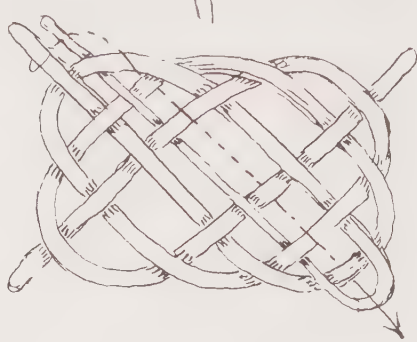
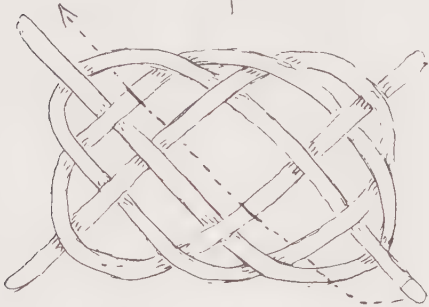


The Knot  
may be tied  
with  
one line  
Fig. 1-a



or it  
may be tied  
with  
two lines  
Fig. 1-b



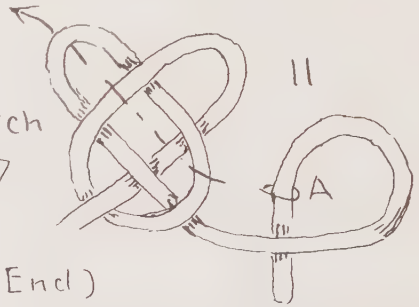
ADDING STRANDS to the CHINESE KNOT

DEVELOPMENT

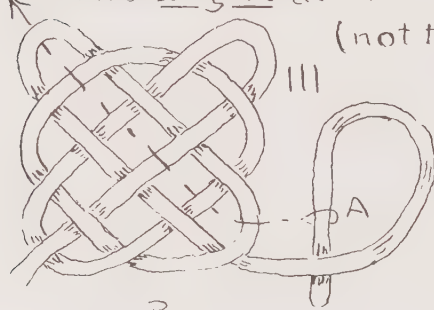
of Interlacings of any number of strands



Fig. I  
Clove Hitch  
page 7

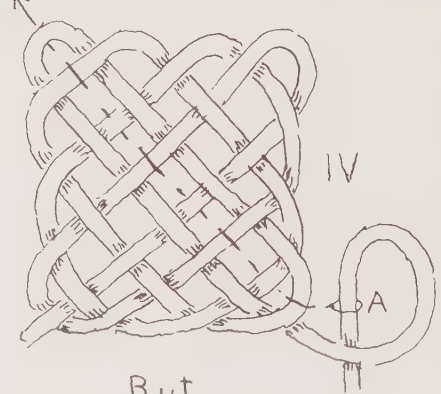


The Bight at A  
(not the End)

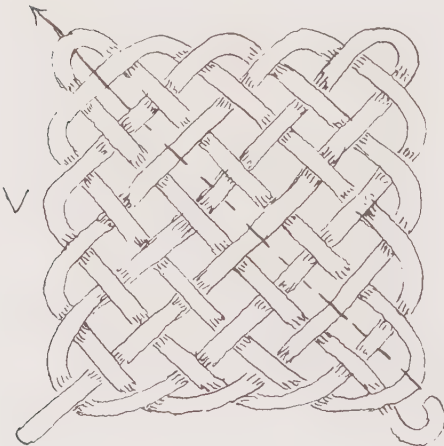


By  
pulling the 2 ends  
of the line  
the Braids fall apart

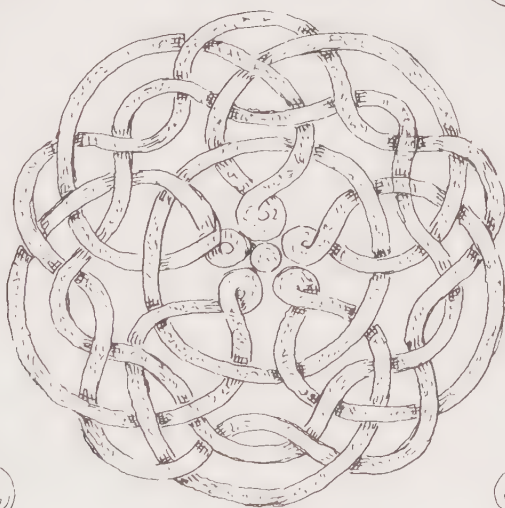
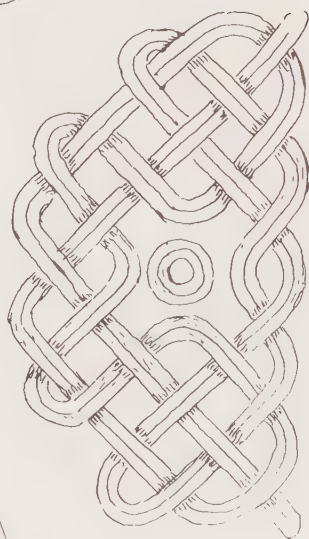
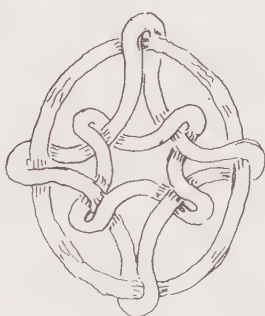
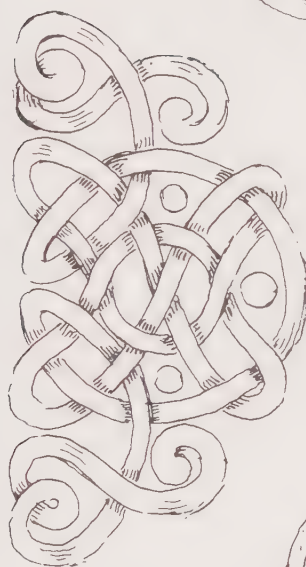
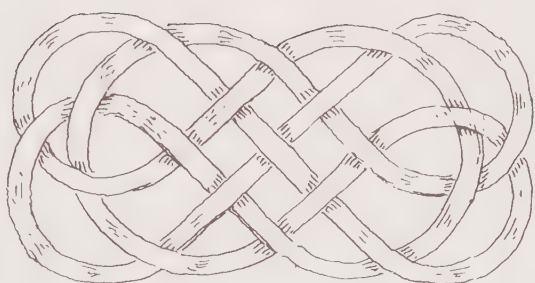
builds up the Braid

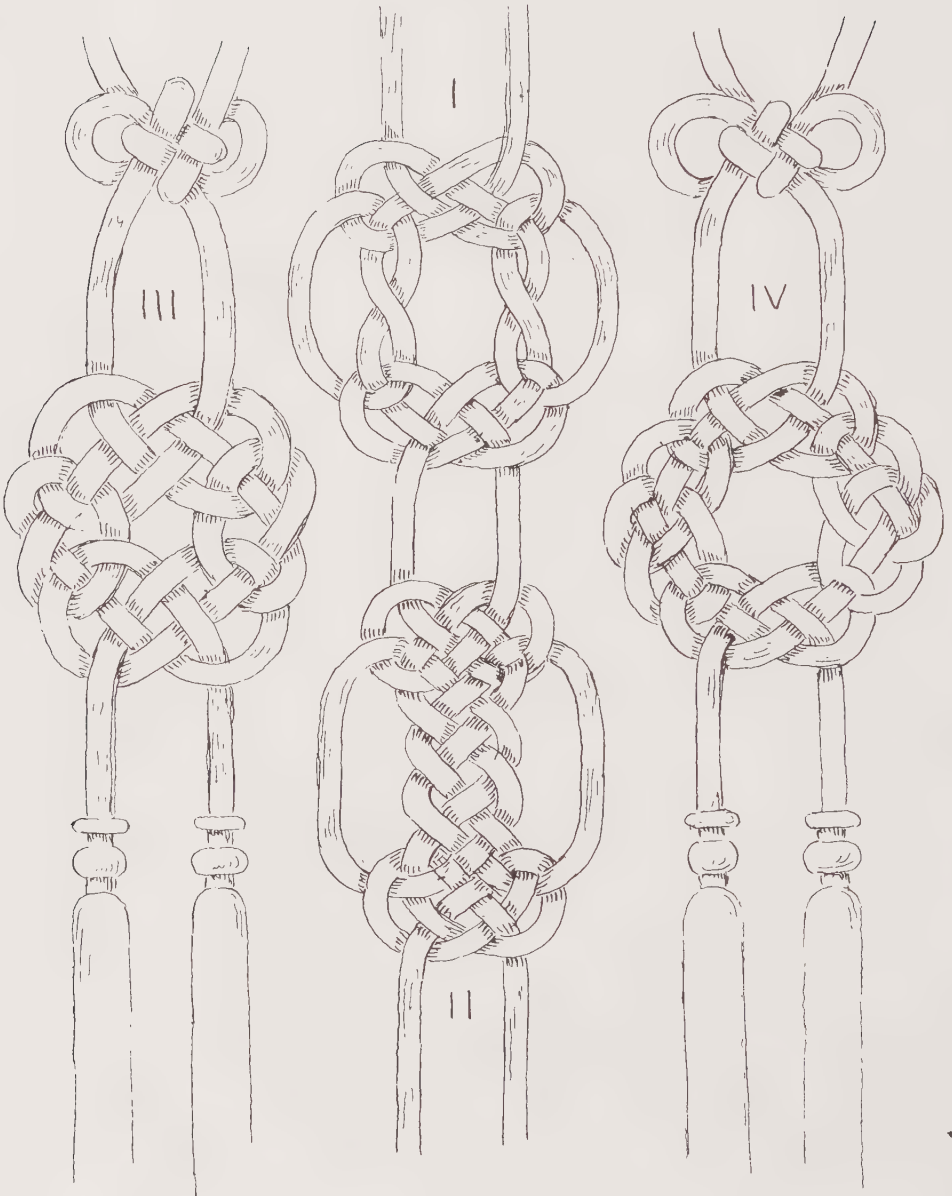


But  
if the End of the line  
(not the Bight) is passed  
through the Braid  
as in Fig. V  
the Interlacing  
cannot fall apart  
and the work can be so ended  
at any one of its stages.







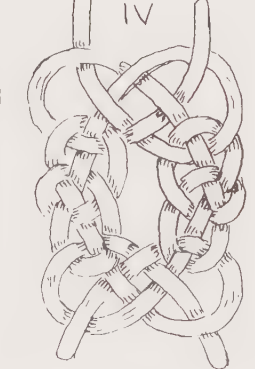
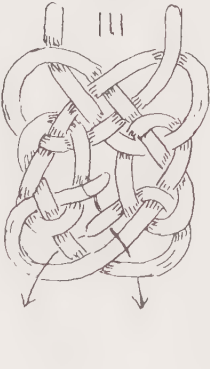
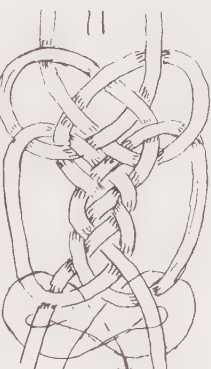
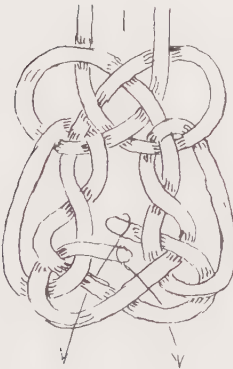
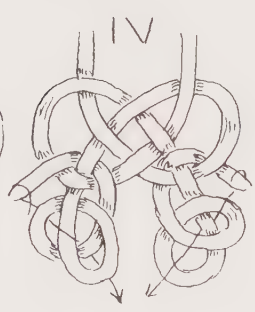
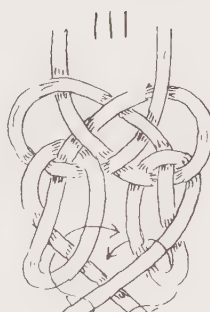
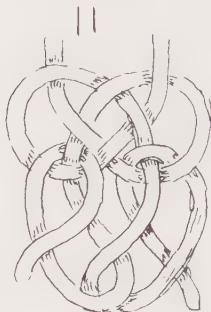
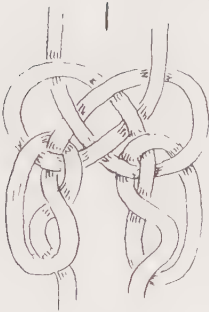
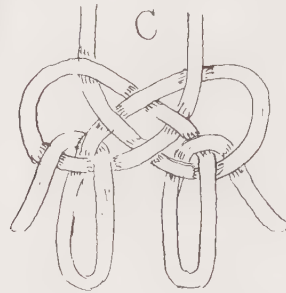
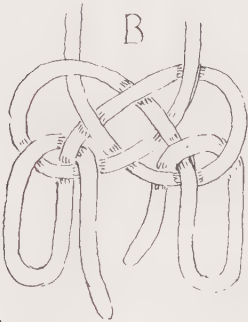
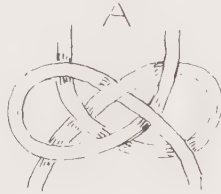
TEMPLE ORNAMENTS

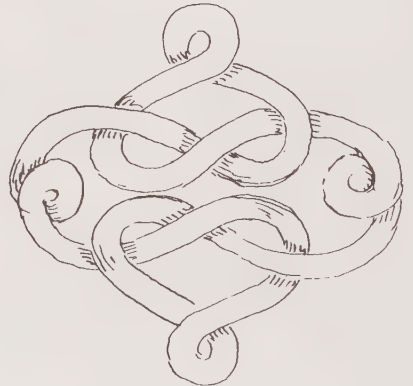
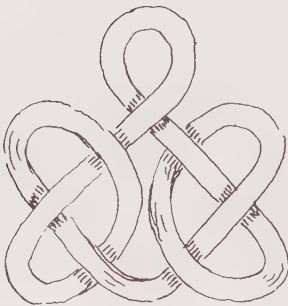
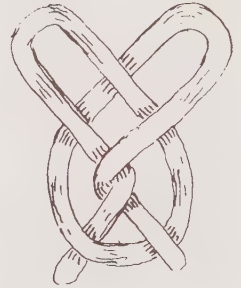
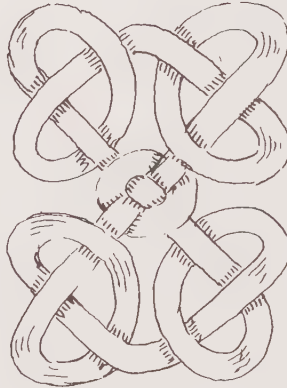
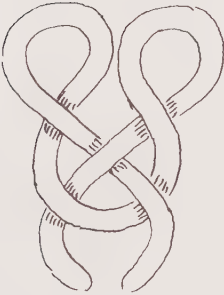
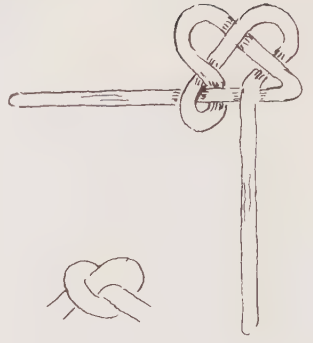
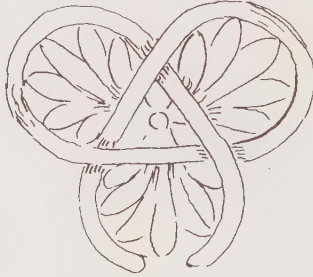
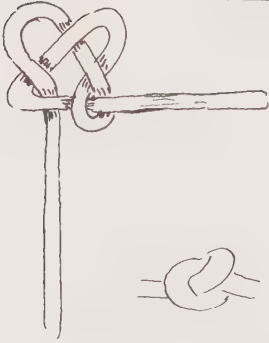
# Details of Temple Ornaments

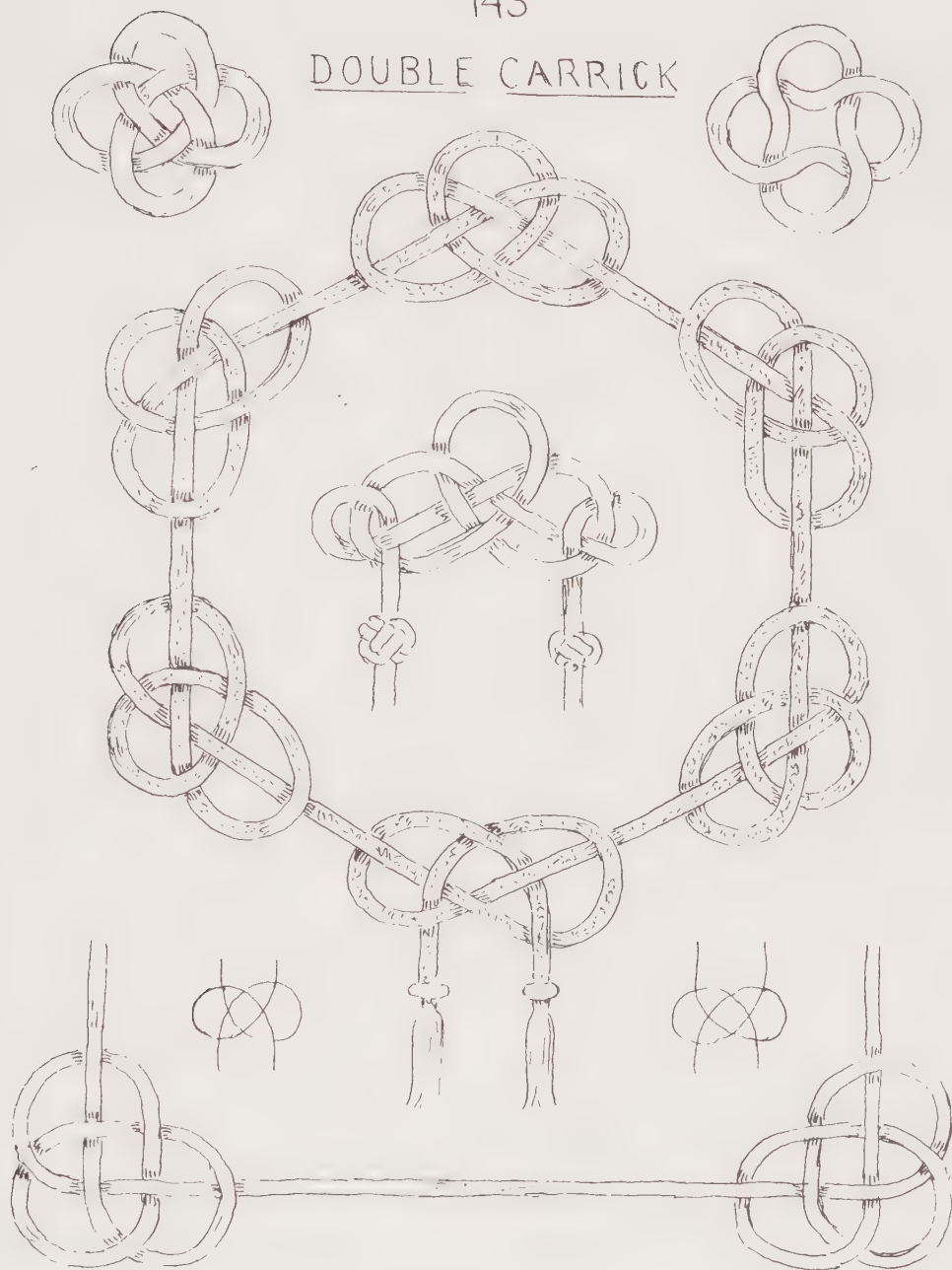
A - begins all four knots

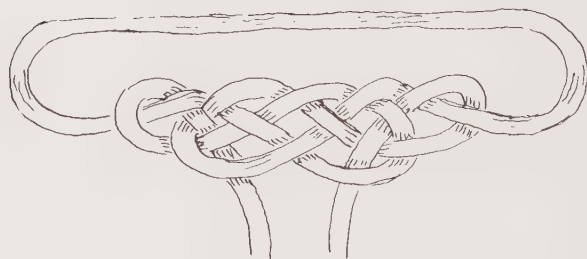
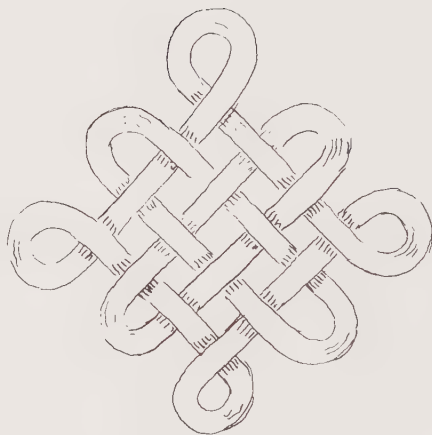
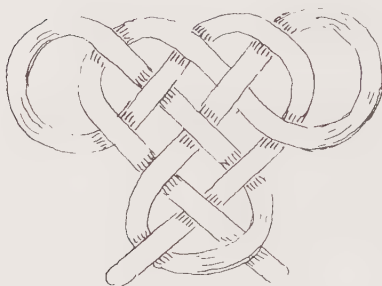
B - belongs with Knots  
I & II

C - belongs with Knots  
III & IV



ORNAMENTAL FORMSbased on the  
Overhand Knot

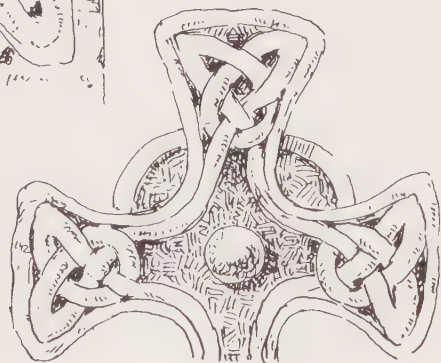
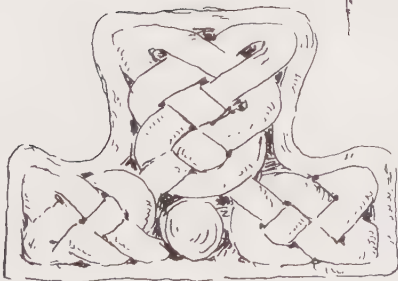
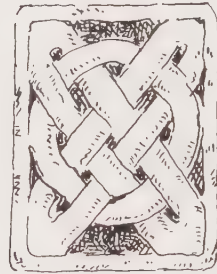
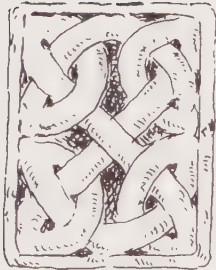
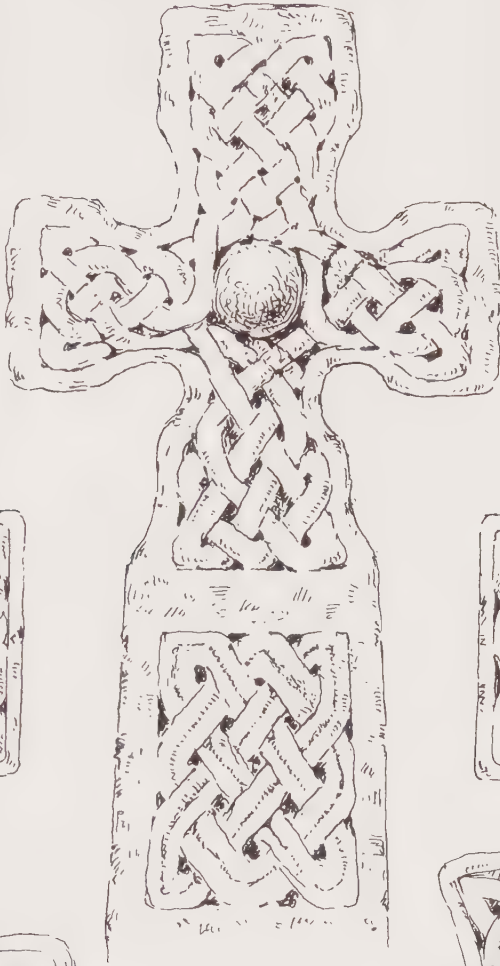
DOUBLE CARRICK

ORNAMENTAL KNOTS



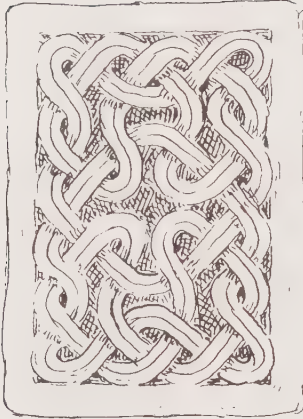
145

CELTIC KNOTS



# CELTIC INTERLACINGS

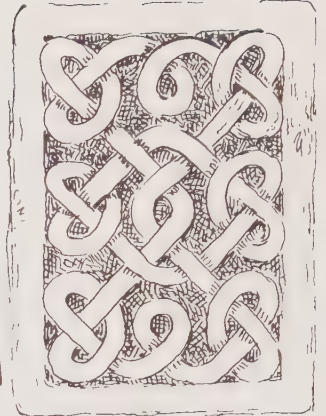
Panels  
II, III, IV & V  
are modifications  
of panel I



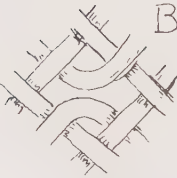
II

I

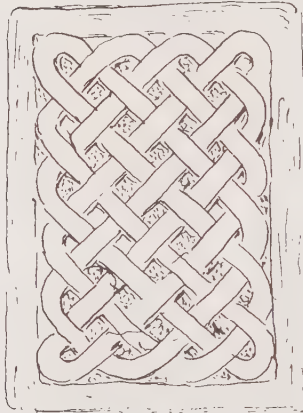
III



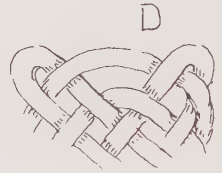
A



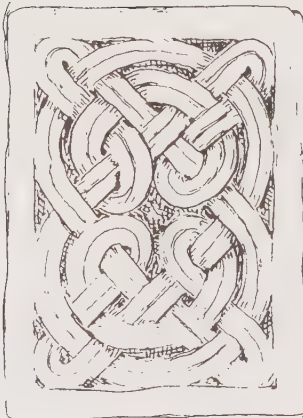
B



C



D



IV

Fig. A  
may be changed to B  
or to

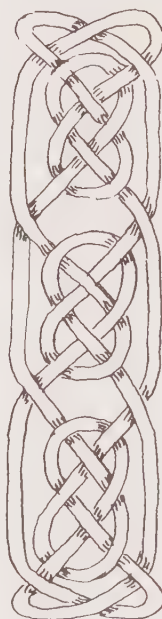
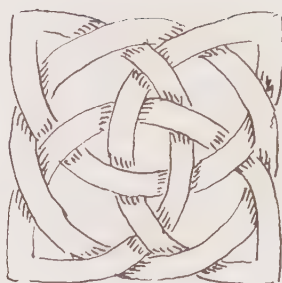
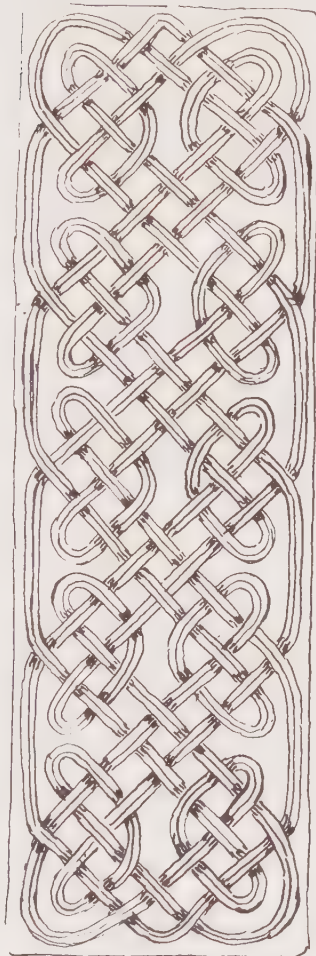
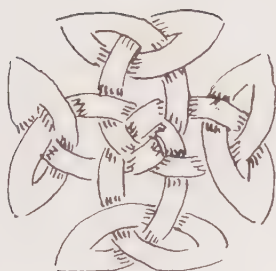


V

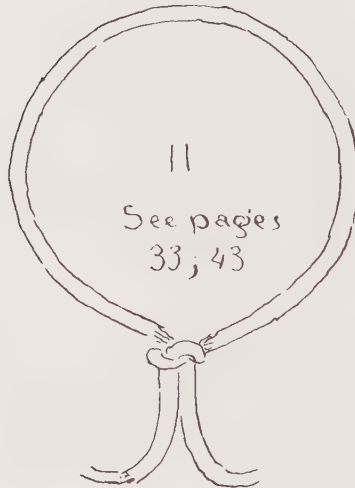
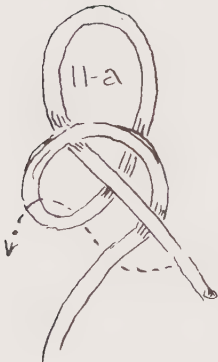
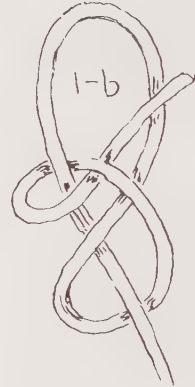
Fig. C  
can be changed to D



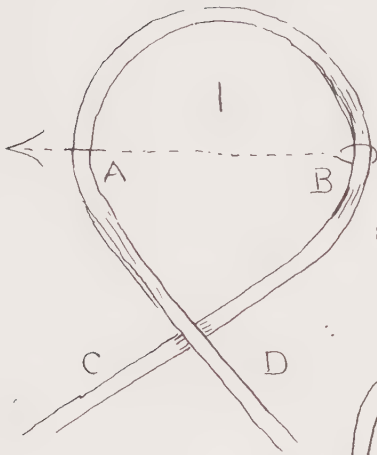


CELTIC KNOTS

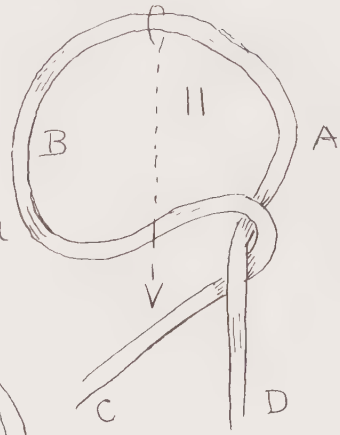
JAPANESE KNOTS



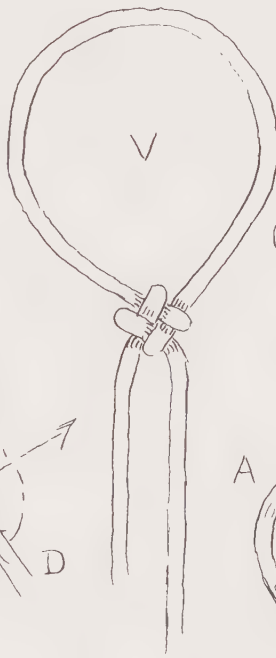
# JAPANESE CROWN KNOT



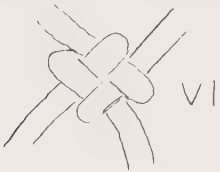
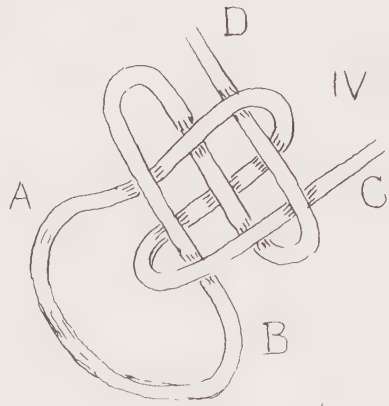
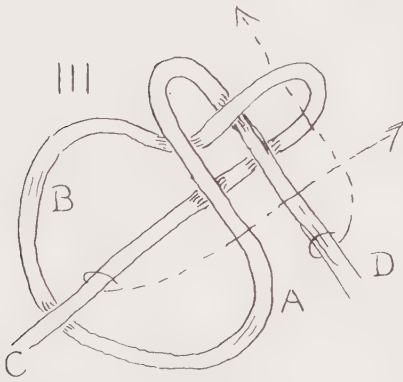
If the four parts  
A-B C-D  
of Fig. I  
are crowned  
Figs. II-IV



The  
result will be



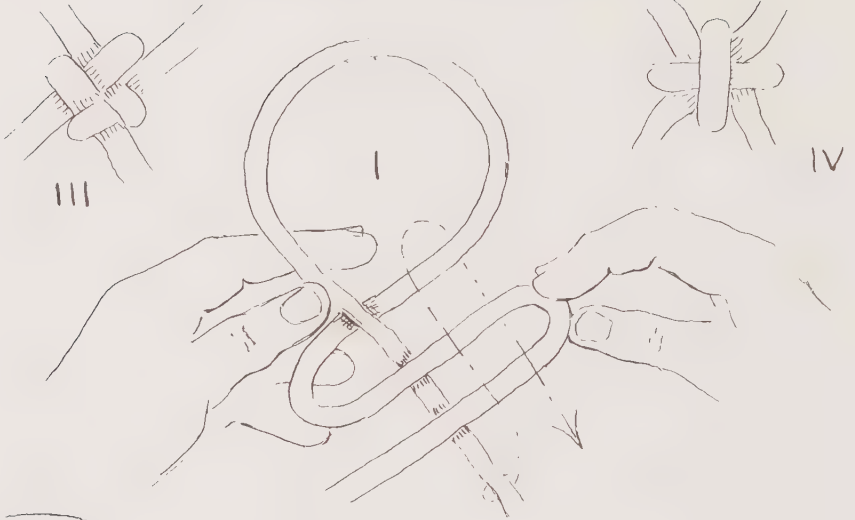
the  
Japanese  
Crown Knot. Fig V



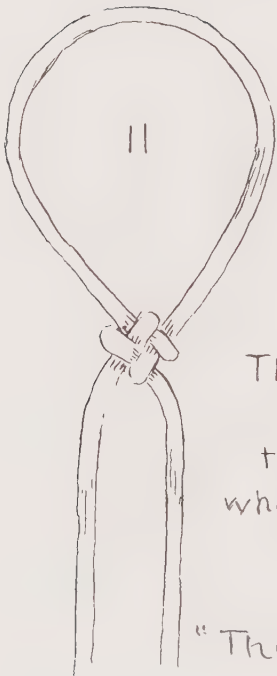
of which  
the front and back  
Figs. VI, VII

are respectively a square and a  
cross

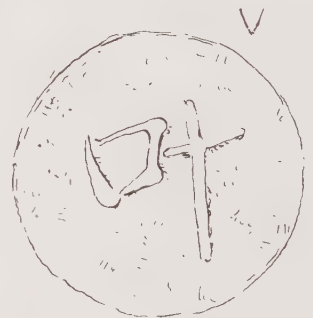


ANOTHER METHOD

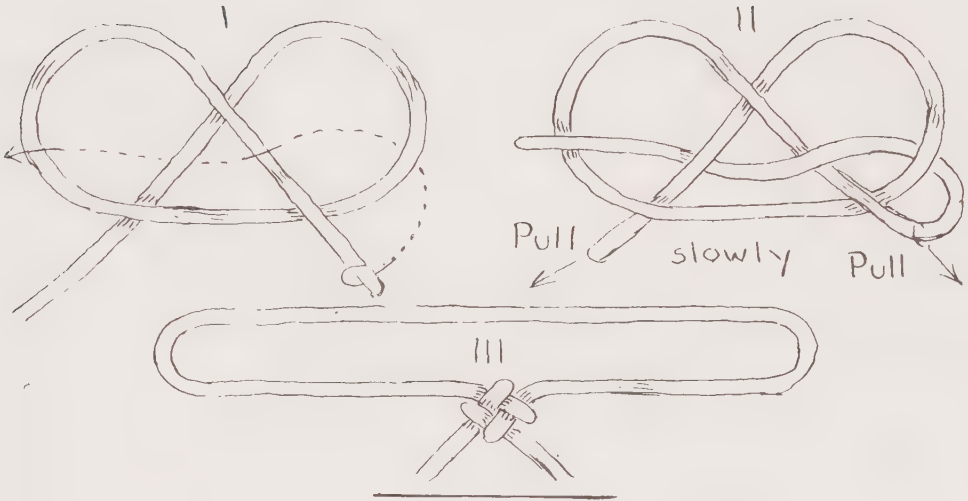
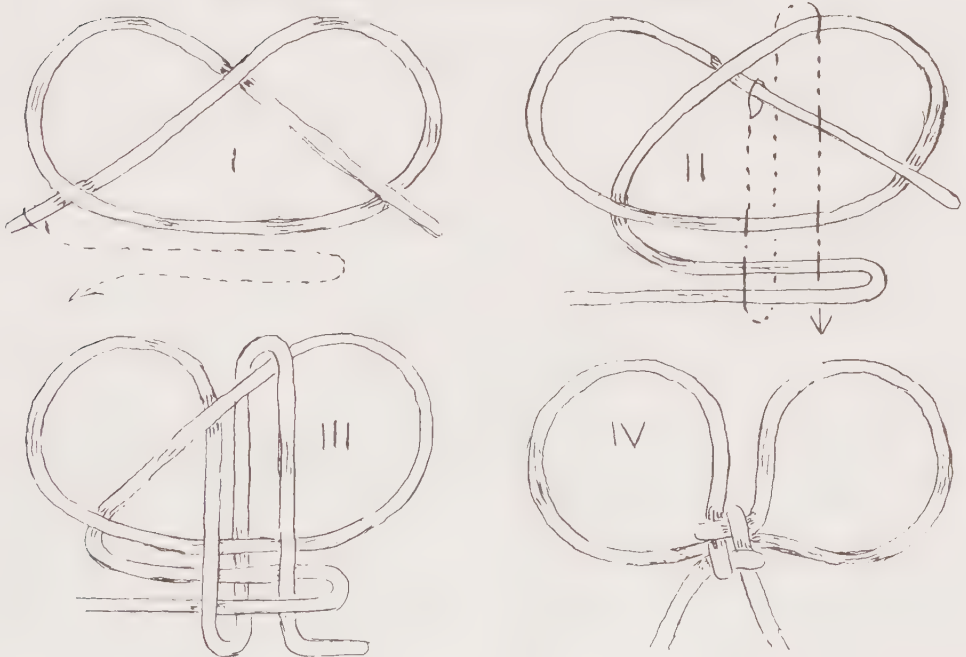
In the museum in Salem, Mass.,  
where many Japanese knots are shown,  
this knot is labelled  
the

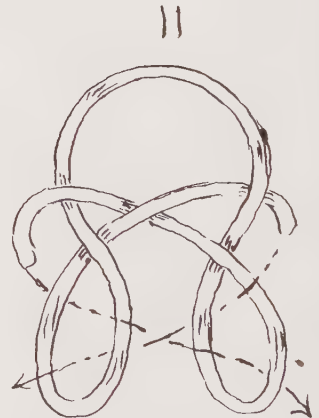
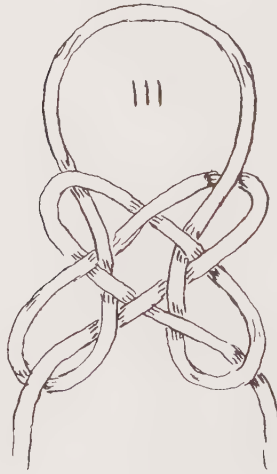
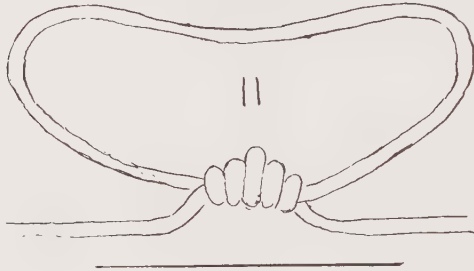
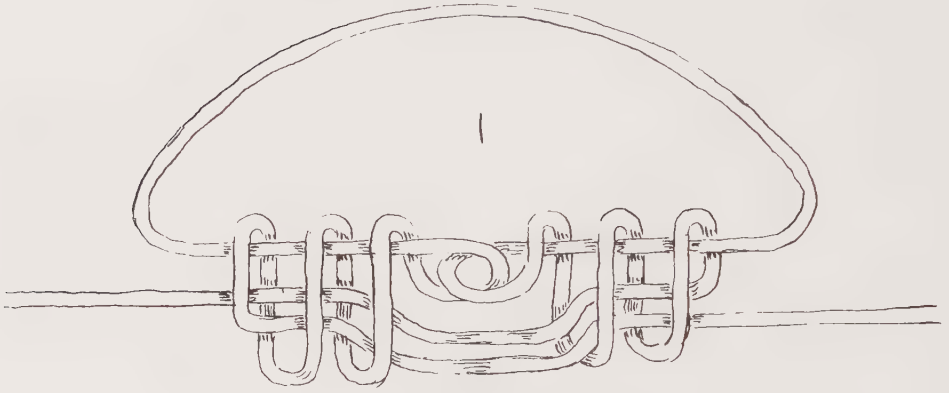
SUCCESS KNOT

The square Fig. III  
and  
the cross Fig. IV,  
when combined, Fig. V,  
form the word  
KANAU

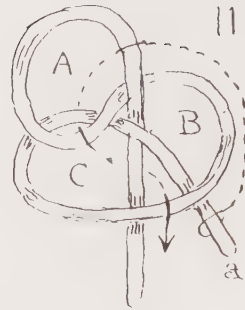
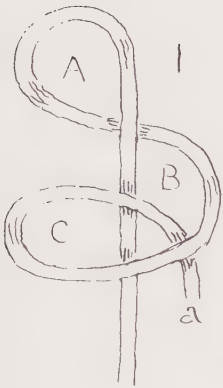


"The wish realized"

ANOTHER METHODDOUBLE SUCCESS KNOT

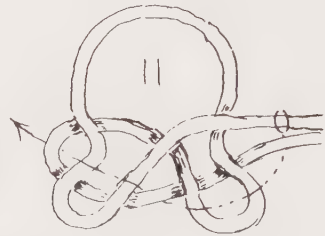
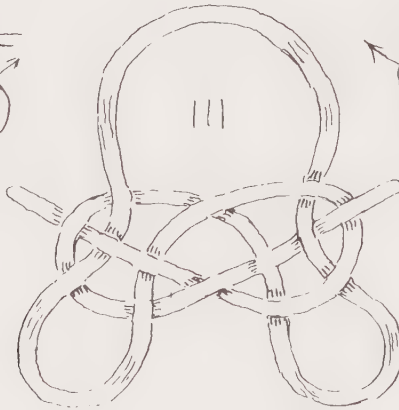
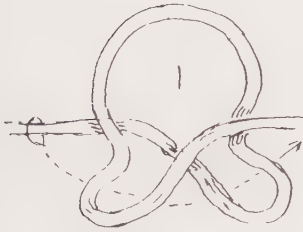
JAPANESE KNOTS

JAPANESE  
KNOTS

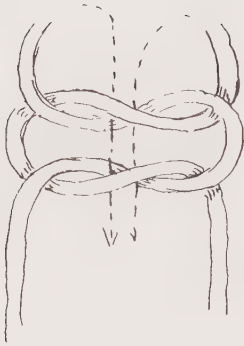


Lay the bight A  
Fig. I  
on the bight C  
Fig. II

Interweave the  
end-a-as  
shown

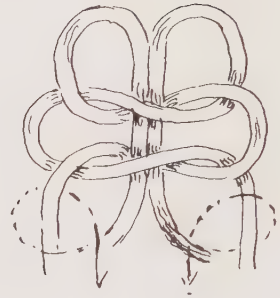


JAPANESE KNOTS

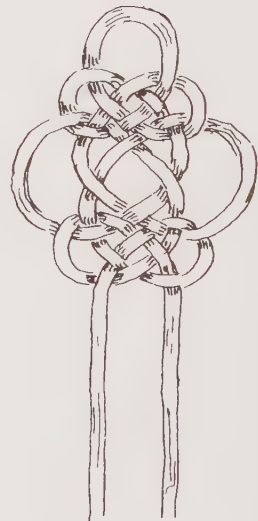
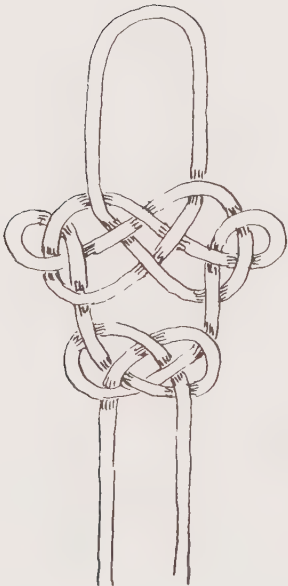
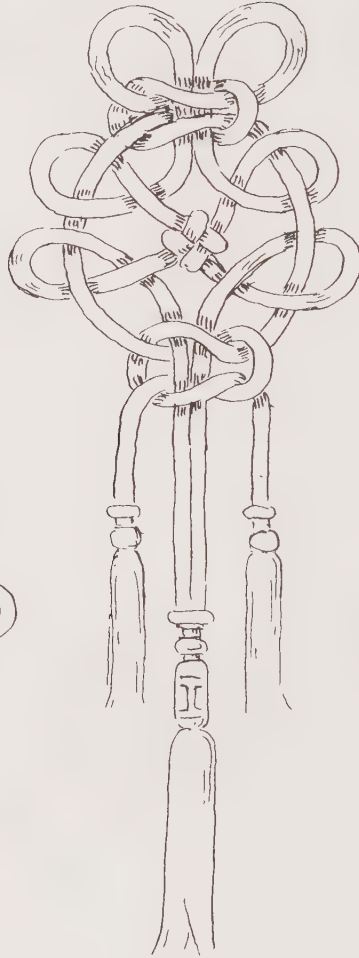


I

II



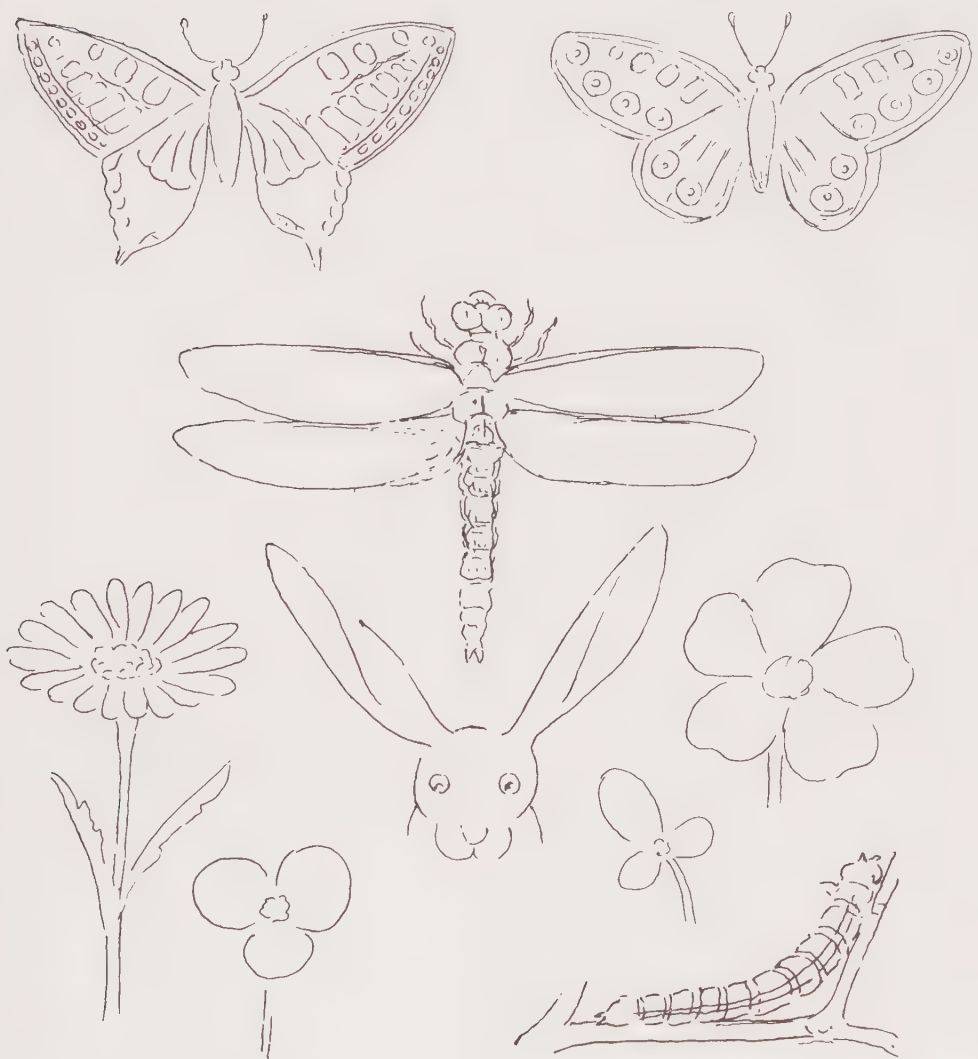
III



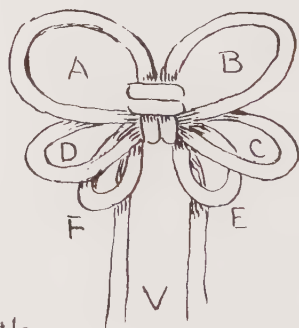
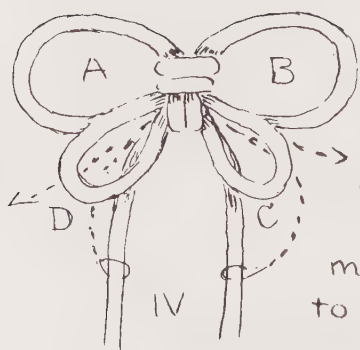
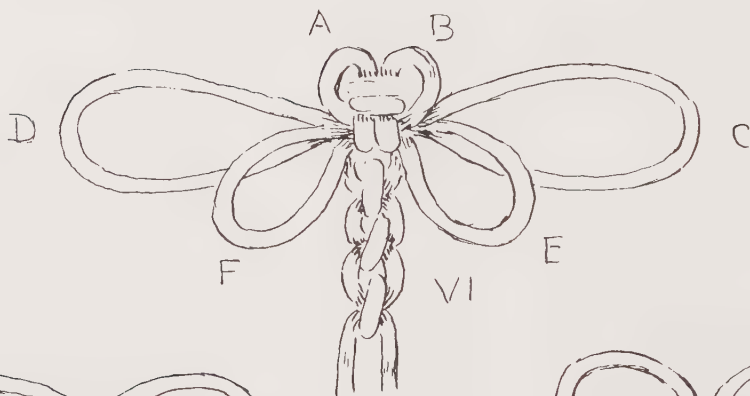
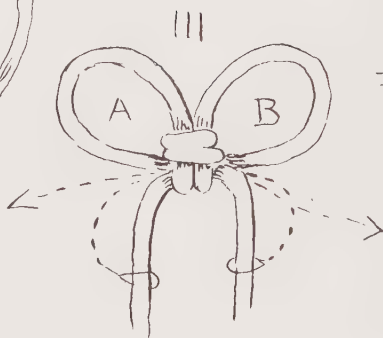
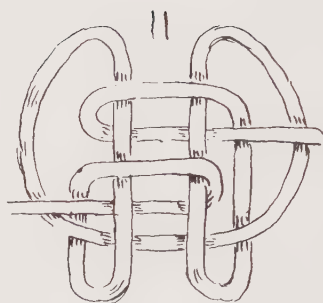
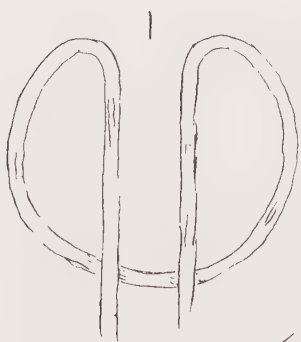


ORIENTAL KNOTS

Suggesting the outline of Flowers and  
of Insects &c



BUTTERFLY



The  
six loops  
A-B-C-D-E-F  
Fig.V  
may be adjusted  
to correspond with  
Fig.VI

BUTTERFLY

Fig 1-a

The Double-triangular Knot, page 171.

Its parts may be adjusted

to form Fig 1-b

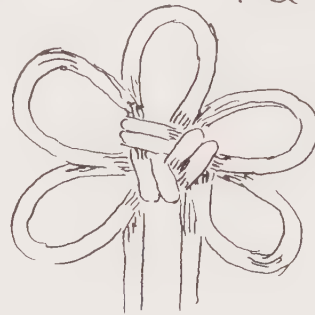
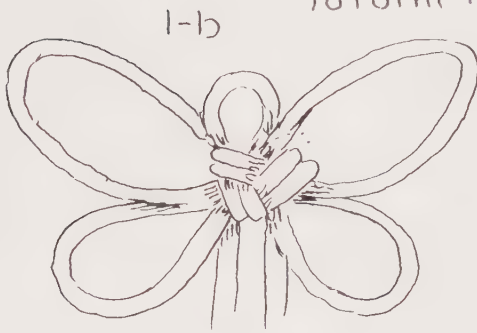


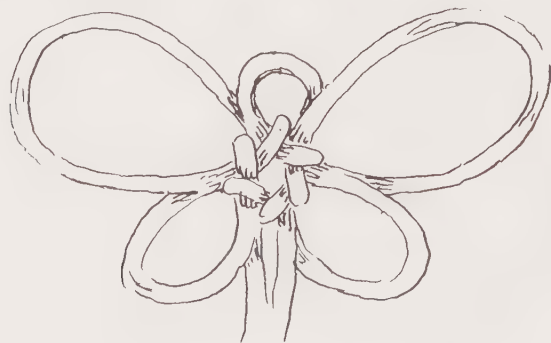
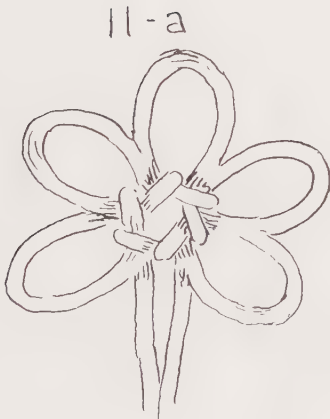
Fig. 11-a

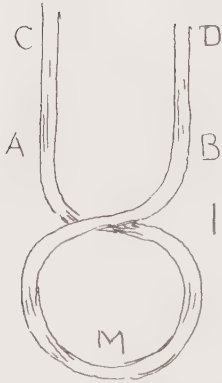
The Hexagonal Knot, page 176.

Its parts may also be adjusted

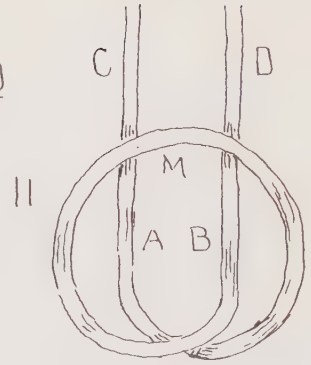
to form

a Butterfly Knot

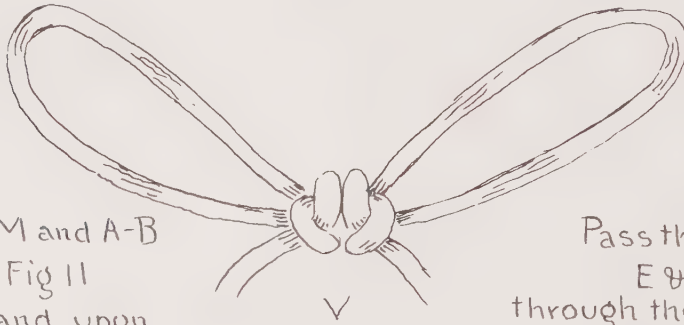


RABBIT'S HEAD

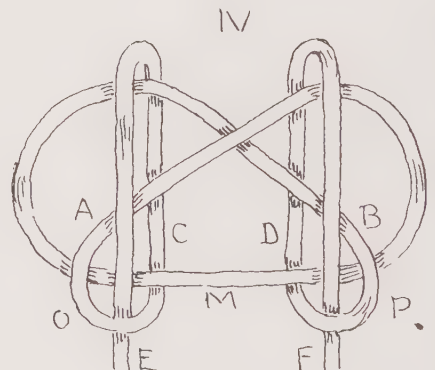
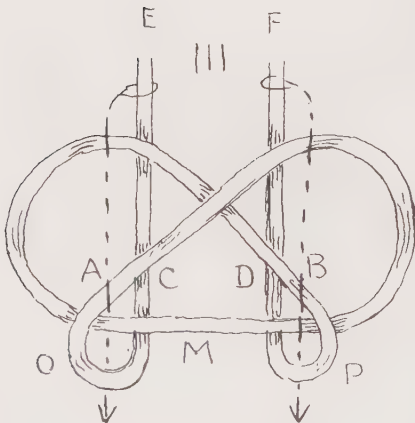
Turn M  
over upon  
A-B  
Figs. I and II



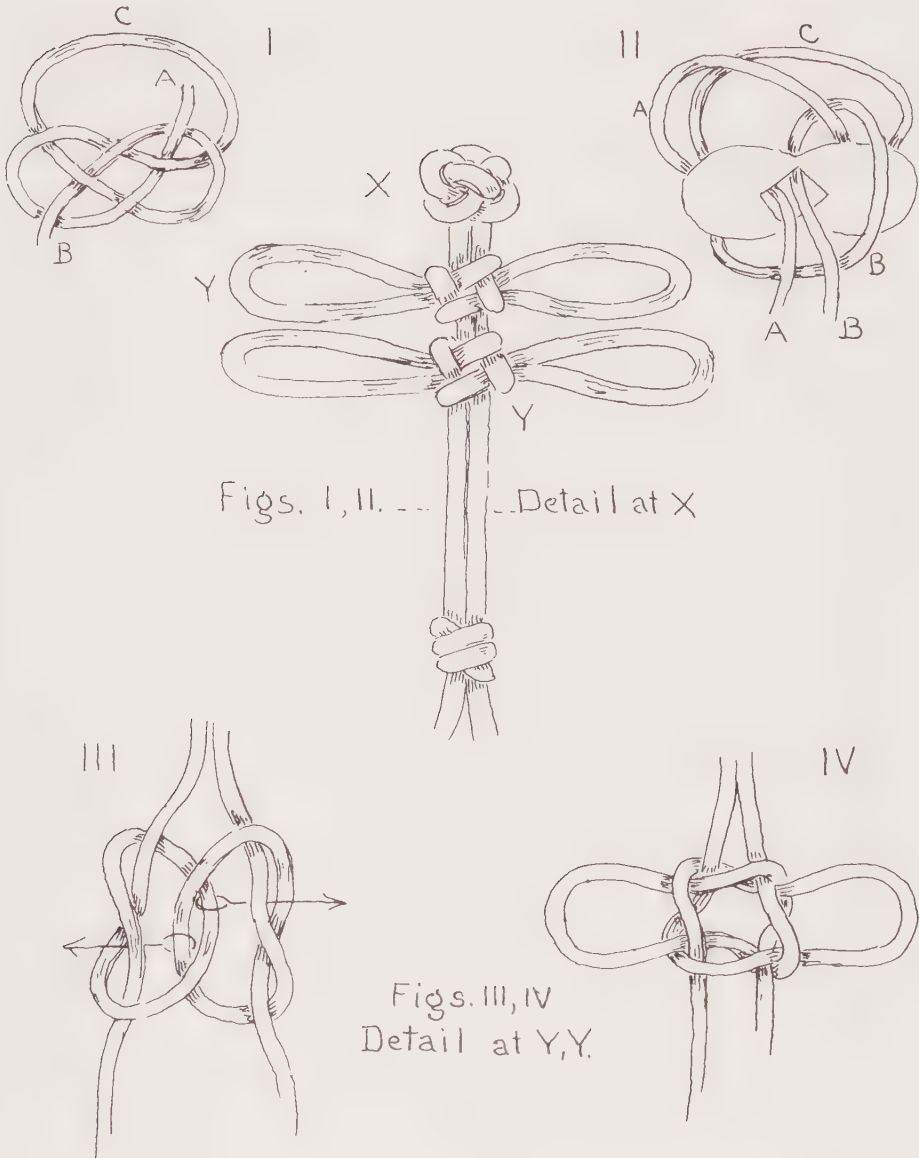
Turn M and A-B  
of Fig II  
over and upon  
C-D  
as in Fig. III



Pass the ends  
E & F  
through the bights  
O & P



THE DRAGON FLY



Figs. I, II. ... Detail at X

Figs. III, IV  
Detail at Y, Y.

INSECT

In the Museum in Salem Mass.  
are two Japanese Knots with the label  
"Insect"



One of them, Fig. I, is a  
three-strand Sennit, page 72  
and probably represents an

III

EARTH WORM

The other, Fig. II,  
is a combination of two  
Macramé' Square Knots,  
see page 128,  
and may possibly represent a

BEETLE

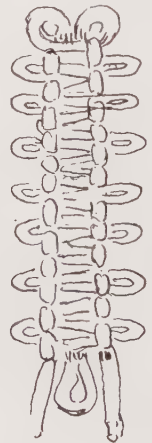
Fig. II suggests a method  
for tying a

CATERPILLAR

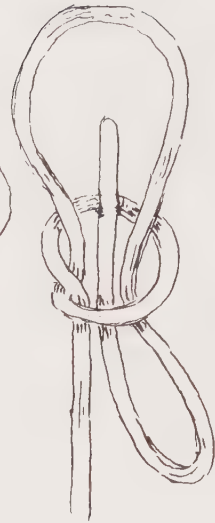
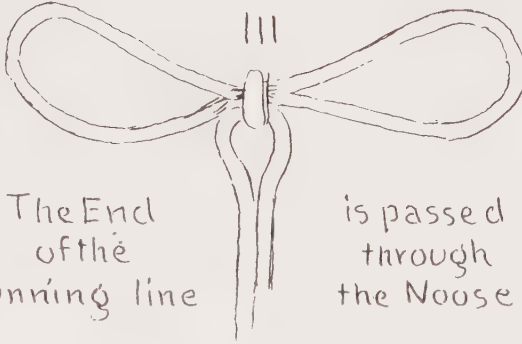
Fig. III is a series of Square  
Knots & spaces  
around two idle lines on which  
the knots are free to run,

By sliding the  
Knots together, Fig. IV is  
the result

IV



# MODIFICATIONS of the Overhand Noose



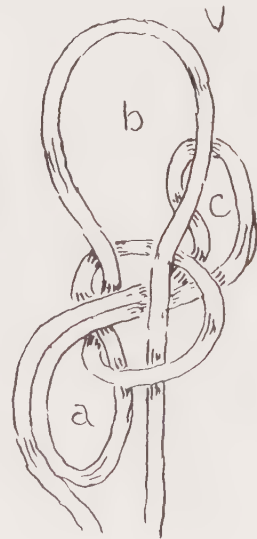
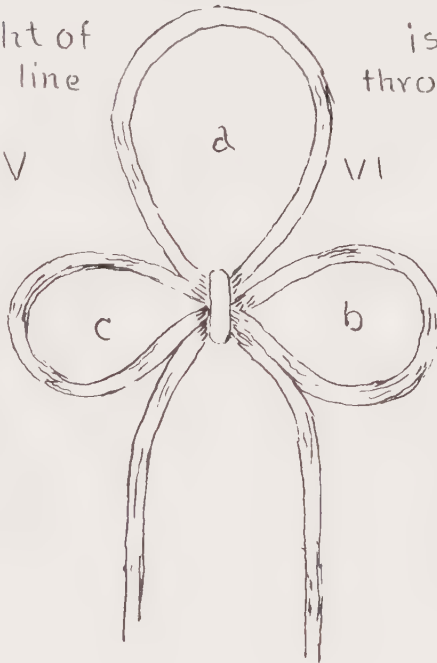
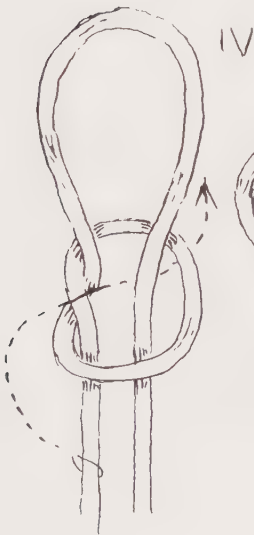
The End  
of the  
running line

is passed  
through  
the Noose

## TREFOIL

The Bight of  
the fixed line

is passed  
through the Noose



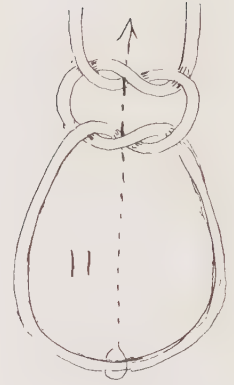
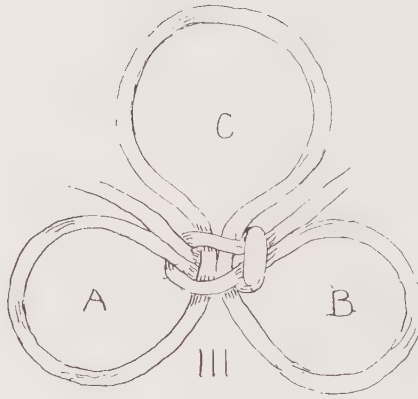
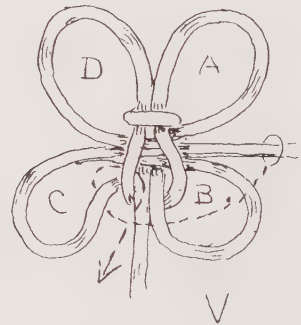
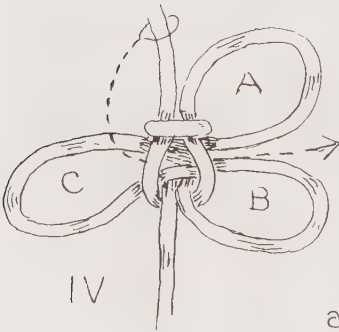
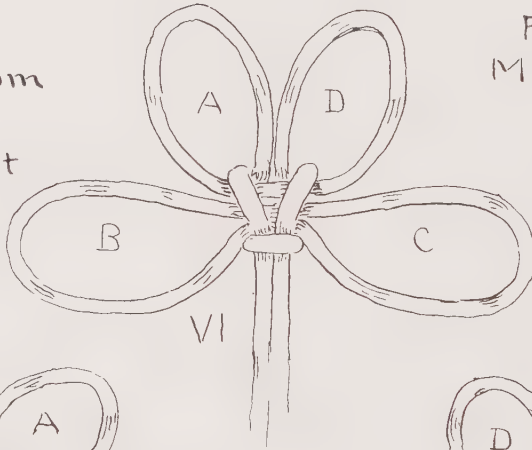


Fig. I - III  
Flower from  
a  
Square Knot

Fig. IV - VI  
Modification  
of  
Fig. III



Figs. IV & V  
are the reverse  
side



FLOWER KNOT

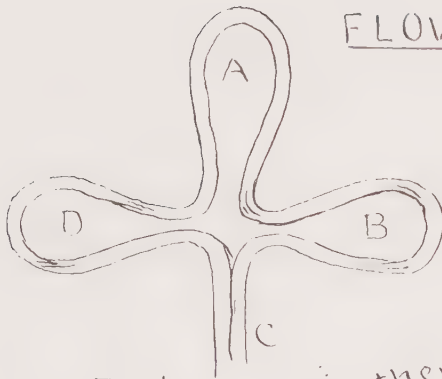


Fig. I  
Position  
of  
the strands

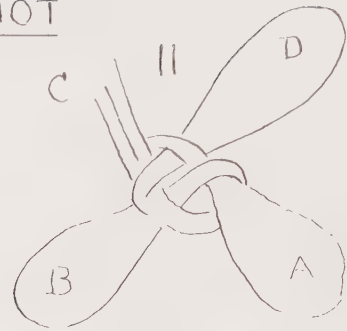


Fig. II  
Crowning  
the  
four parts

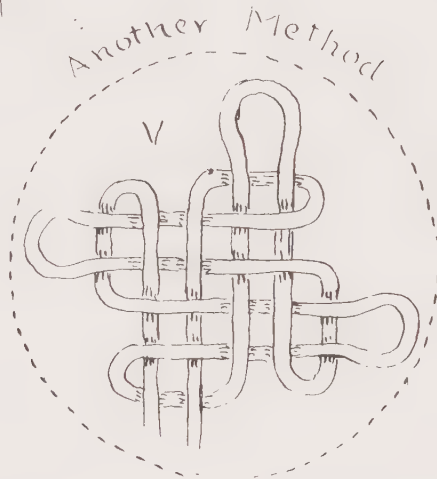
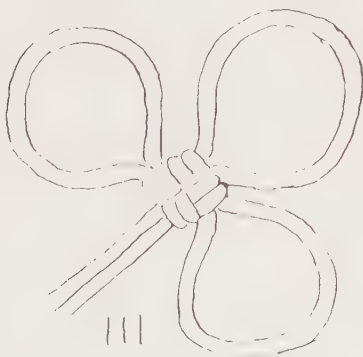
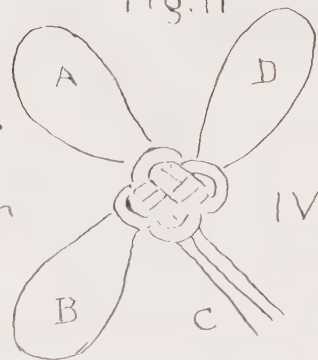


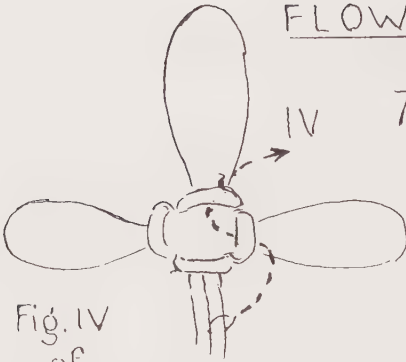
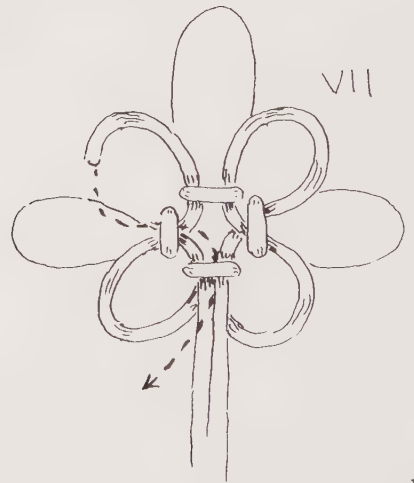
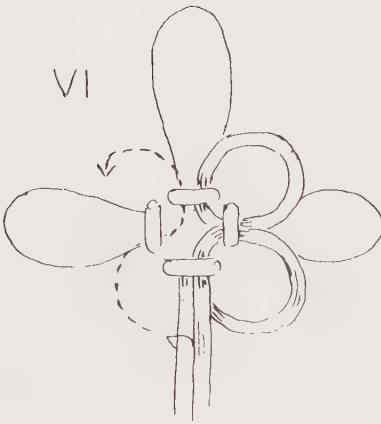
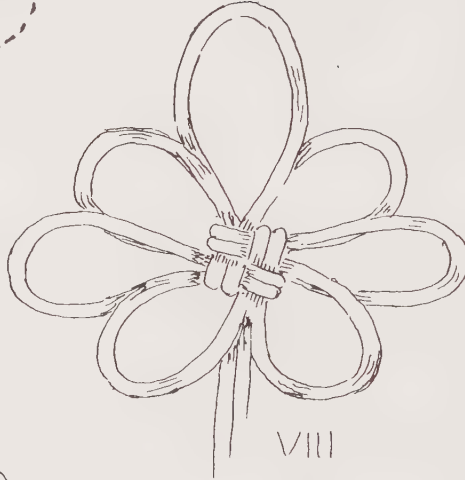
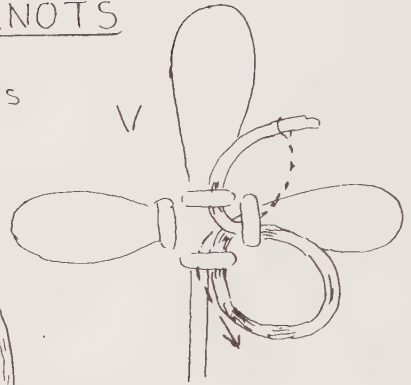
Fig. III  
Flower  
of  
three petals

Fig. IV  
Reverse side  
of  
Fig. II



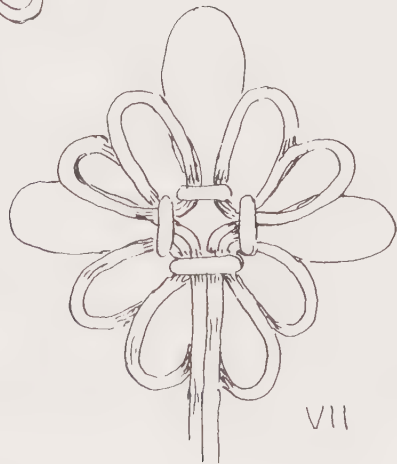
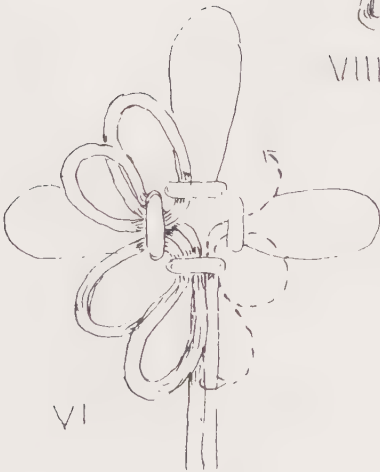
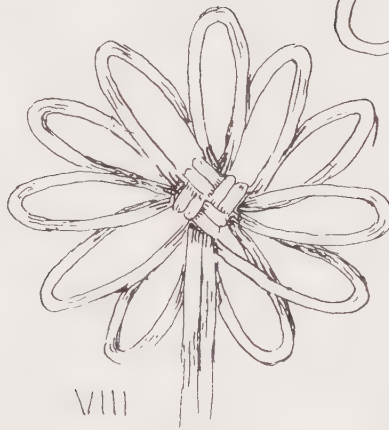
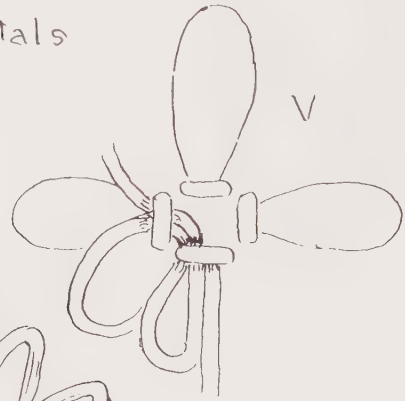
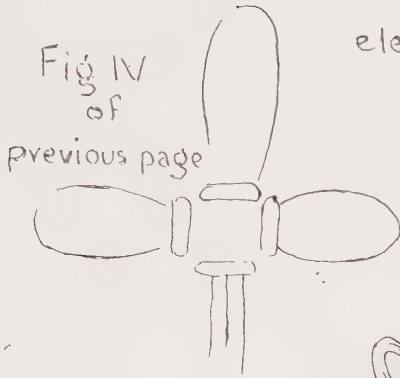
For Flowers  
of  
Seven & Eleven  
petals  
see  
next two pages



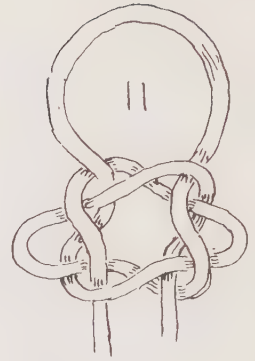
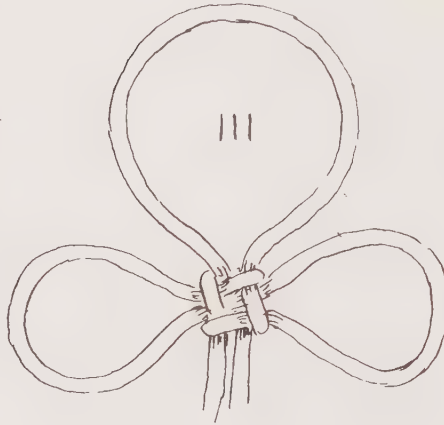
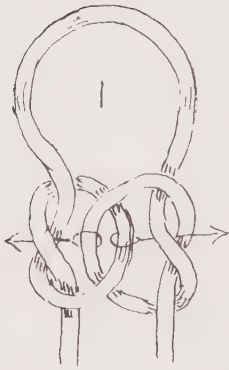
FLOWER KNOTSof  
7 petalsFig. IV  
of  
previous page

CHRYSANTHEMUM

of  
eleven petals



FLOWER of 3 Petals



FLOWER of  
5 Petals

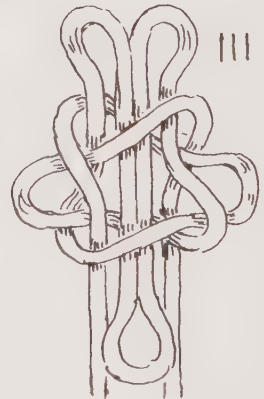
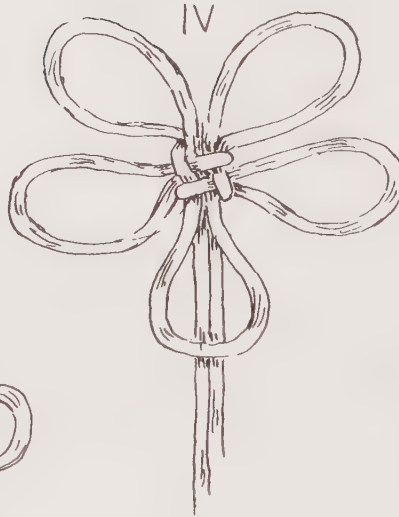
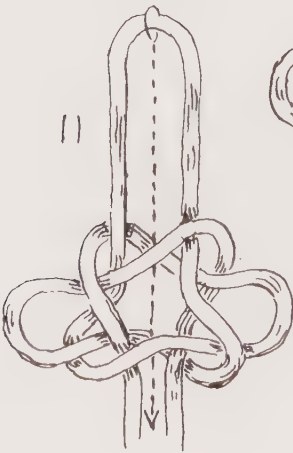
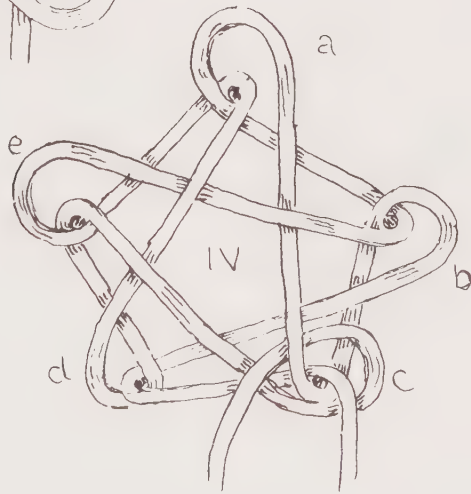
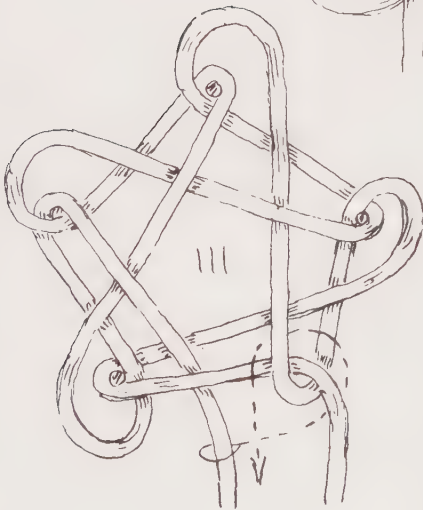
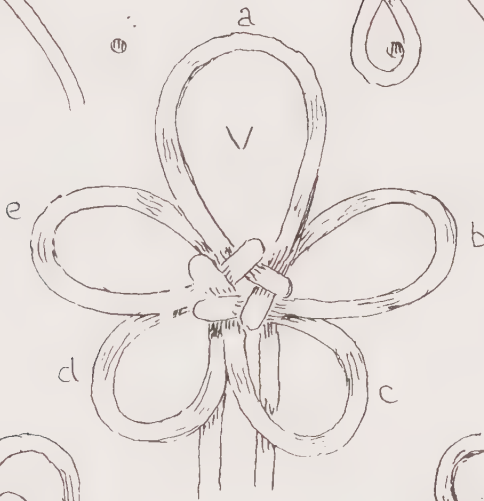
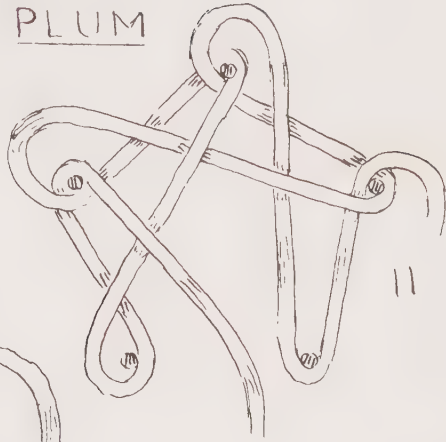
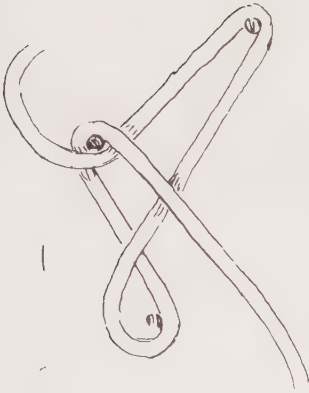
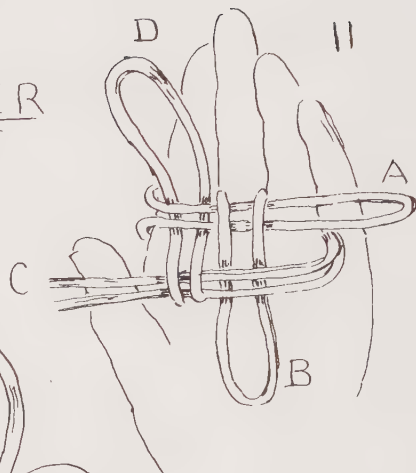
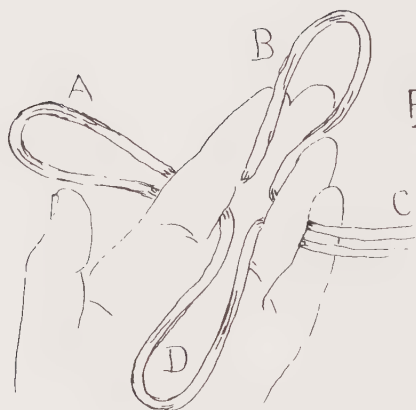


Fig II above

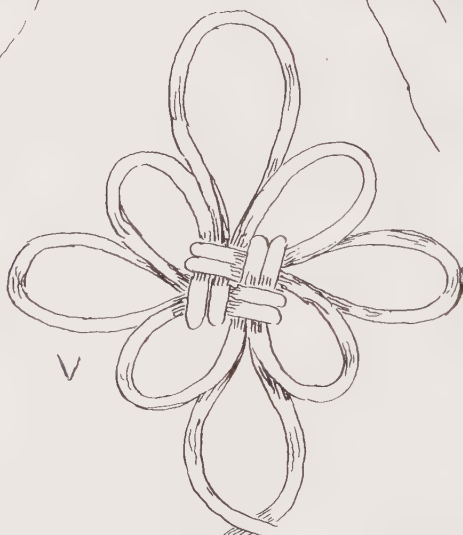
# FLOWER OF THE PLUM



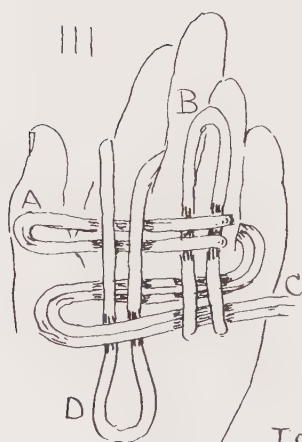
# FLOWER KNOT



Arrange the  
strands  
as shown in  
Fig. I



Crown the four  
parts, A, B, C, D  
Fig. II  
from right to  
left



A, B, C & D  
are again crowned  
from left to right  
Fig. III.

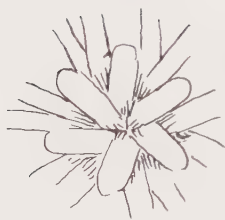
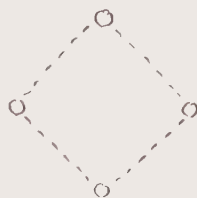
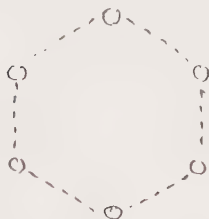
Fig. IV shows the  
lay of the strands on the  
back of the hand



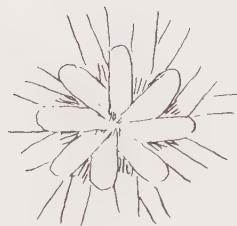
To avoid confusion the under  
strands of Fig. III are omitted.

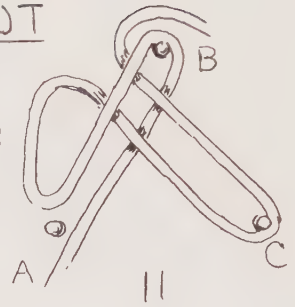
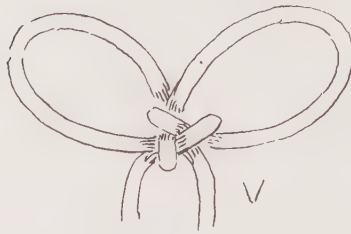
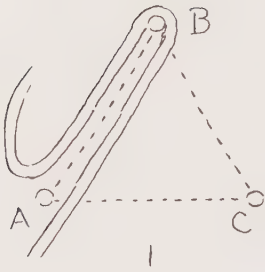
POLYGONAL KNOTS

These Knots are  
 probably  
 of Chinese origin  
 They may be tied with the aid of  
 pins  
 placed at the angles  
 of  
 a triangle, square, pentagon  
 or other regular  
 polygon

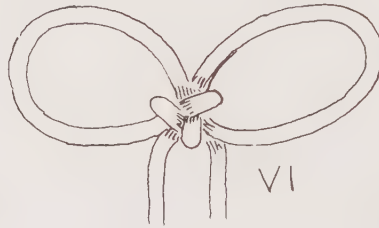
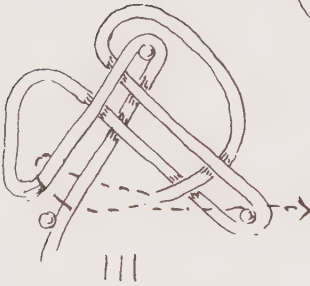


The radiating  
 strands  
 at the center of the knot  
 are double.  
 There is a top and bottom  
 layer  
 which are alike

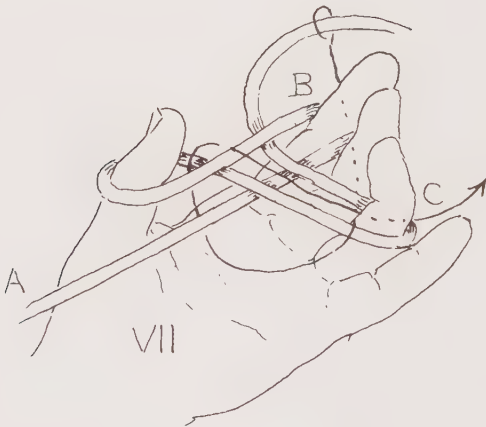
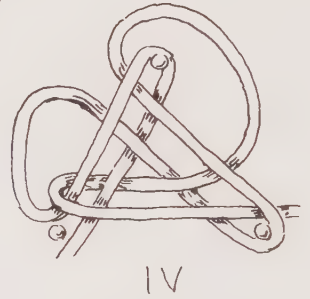


TRIANGULAR KNOT

Front



Back



This Knot  
may be tied on the  
fingers of the  
hand

Fig VII corresponds  
with  
Fig II above



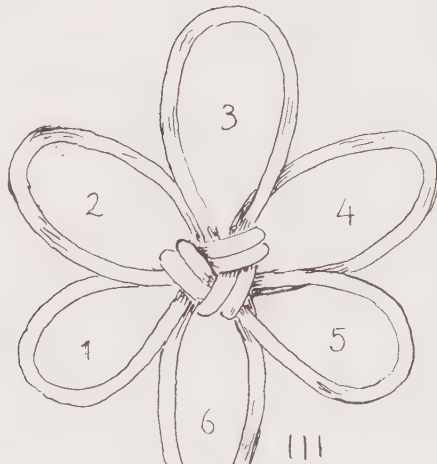
# DOUBLE TRIANGULAR KNOT



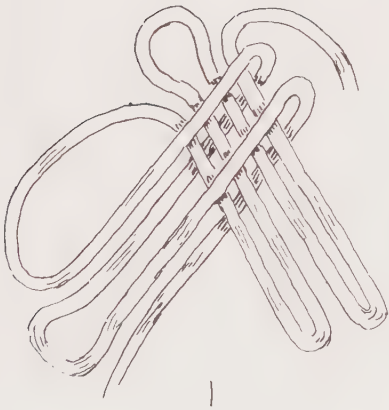
Front



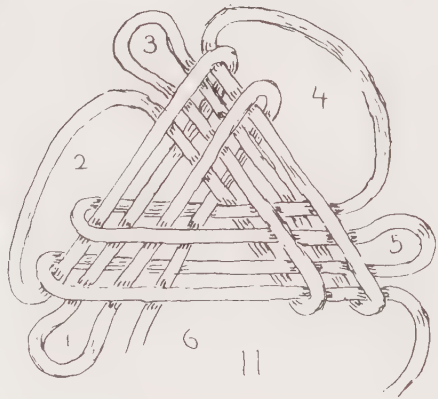
Back



III

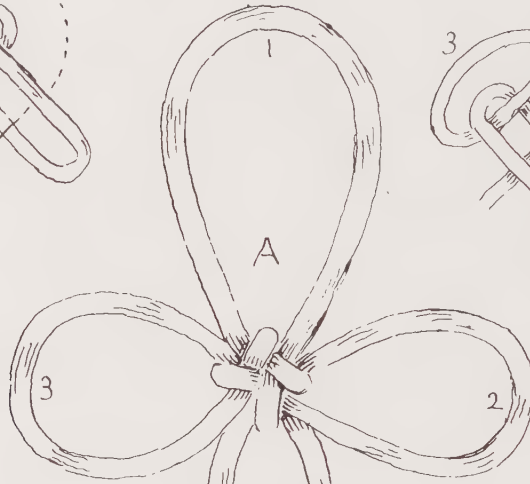
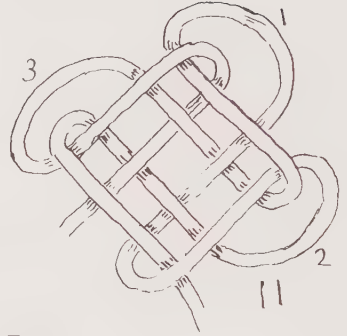
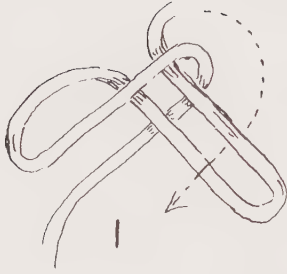


I



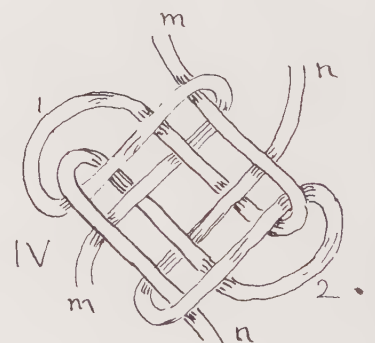
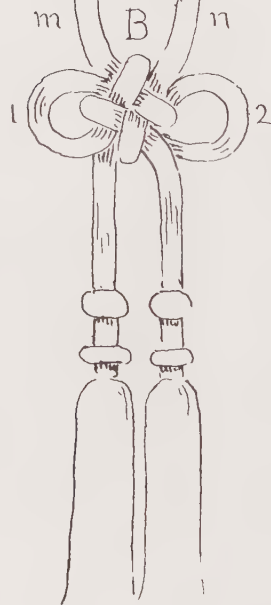
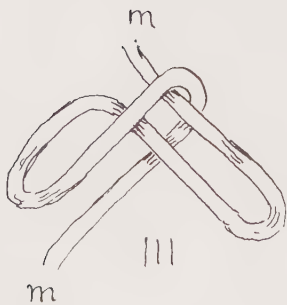
II

# SINGLE QUADRANGULAR - KNOT

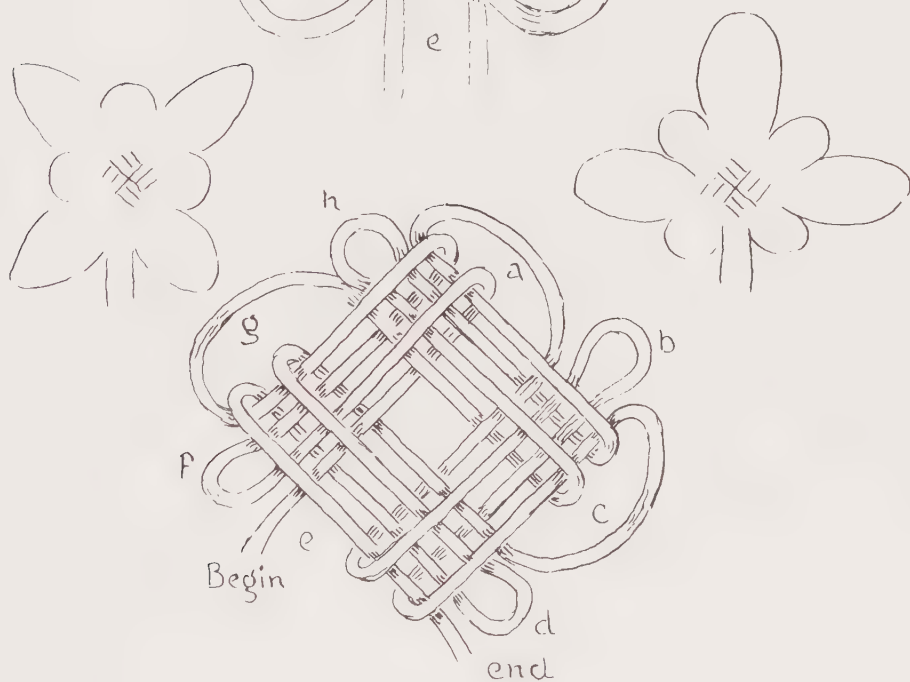
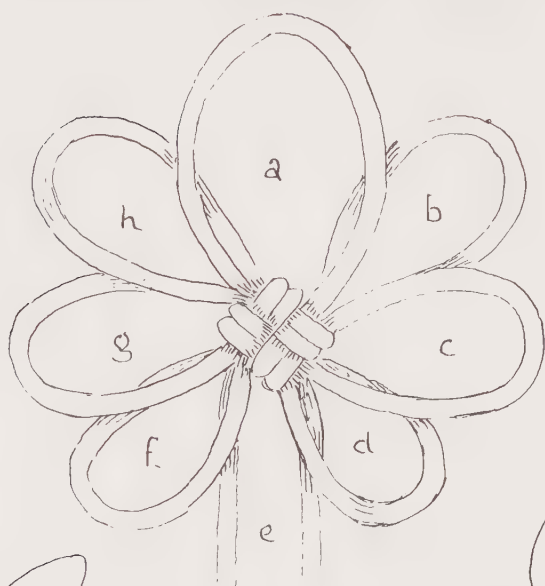


Figs. I, II  
Detail of Fig. A  
tied with  
a single line

Figs. III, IV  
Detail of Fig B  
tied with  
two lines m & n



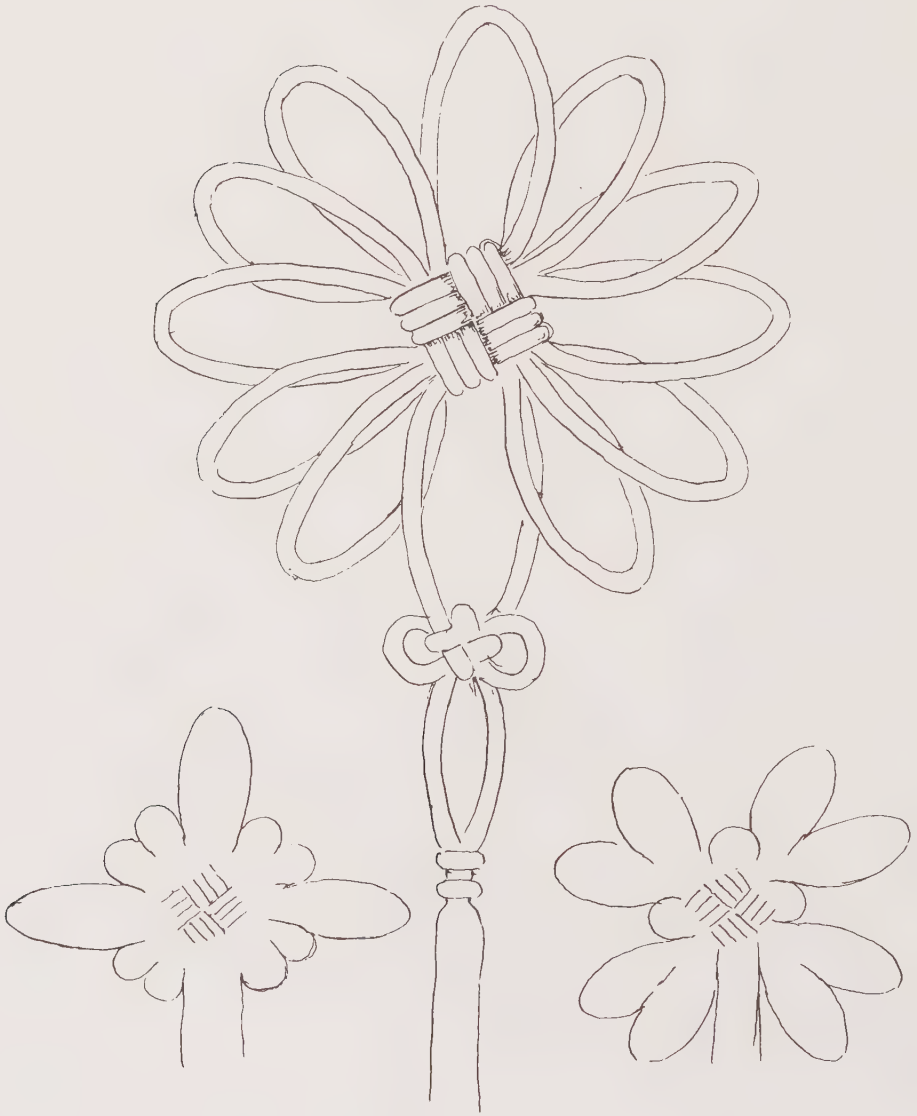
173  
DOUBLE  
QUADRANGULAR-KNOT



174

TRIPLE

QUADRANGULAR - KNOT



175

DETAIL

of the

Triple Quadrangular-Knot

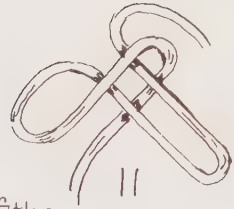
The method is the same as that of the  
single form

Figs. I, II, III and IV

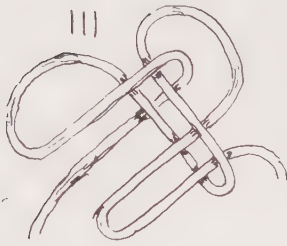
But with the loops in 3's



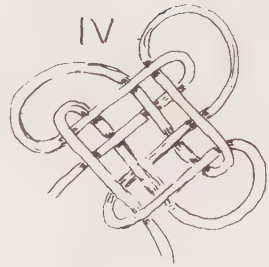
I



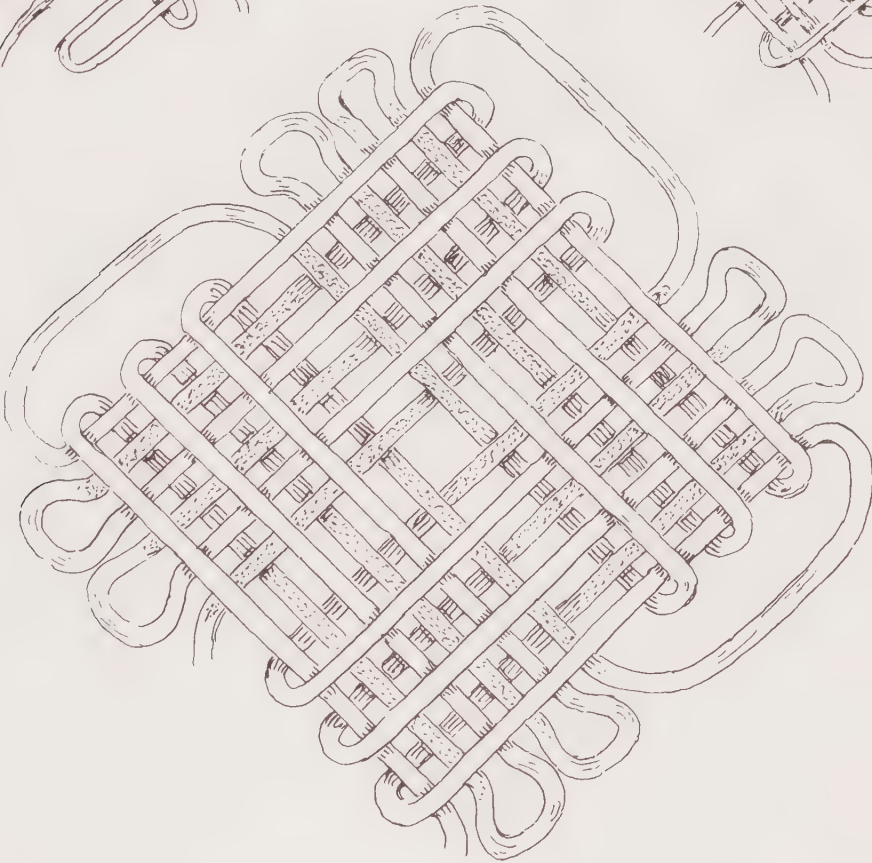
II



III

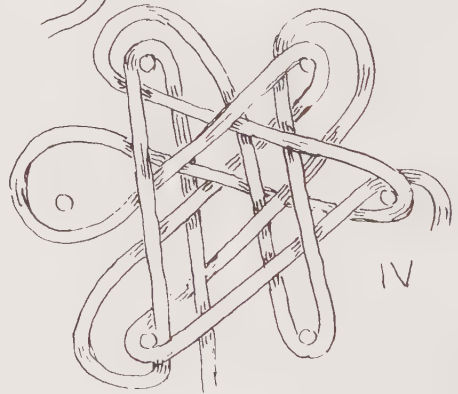
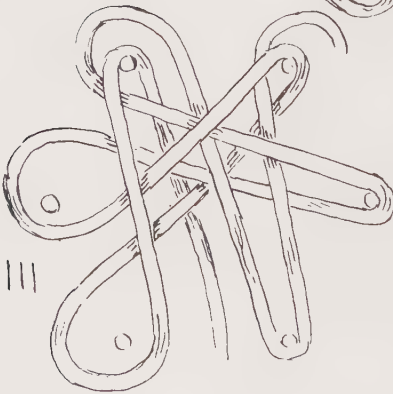
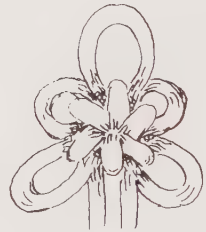
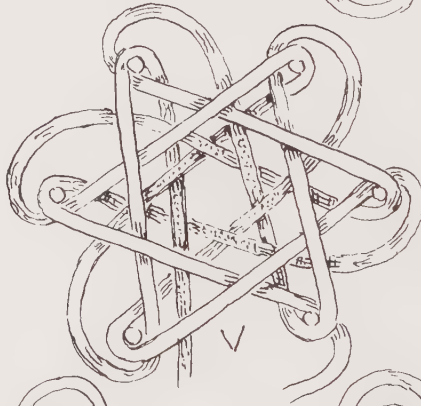
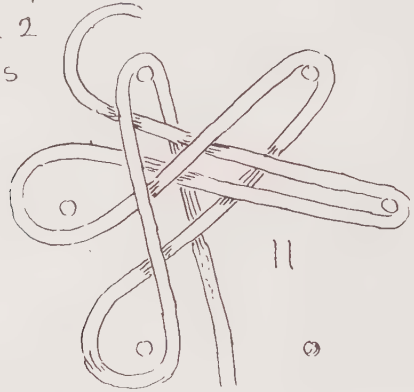
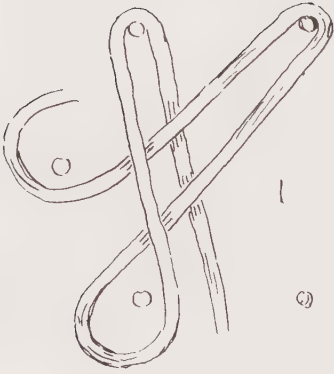


IV



HEXAGONAL KNOT

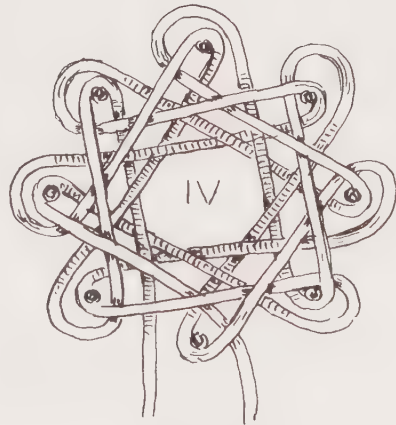
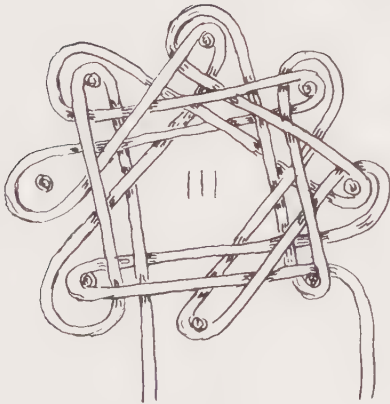
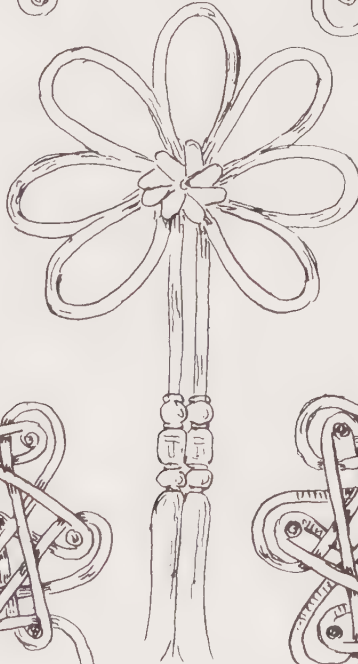
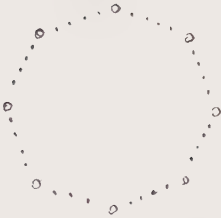
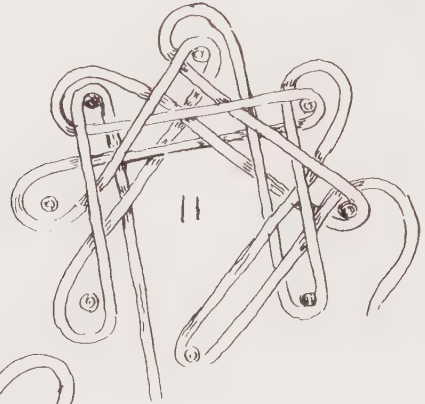
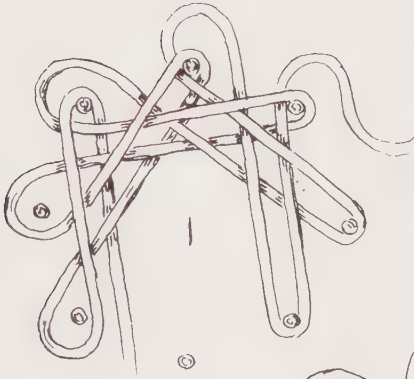
Each Bight passes  
through 2  
Loops

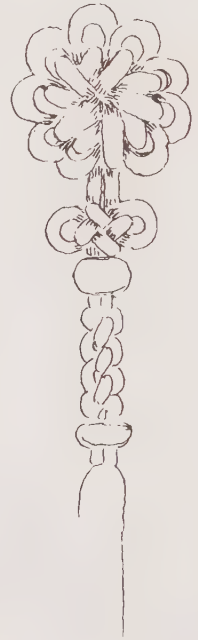
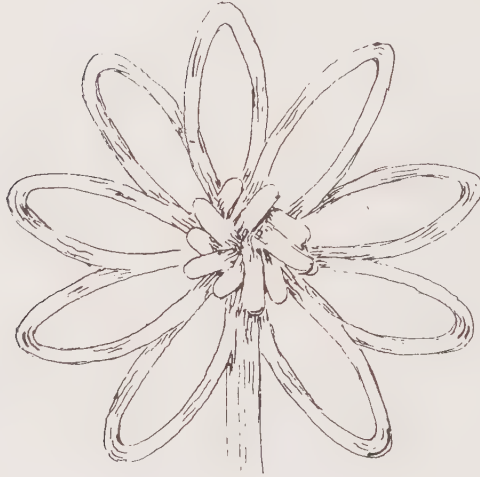


177

OCTAGONAL KNOT

where  
each Bight passes  
through 2  
Loops



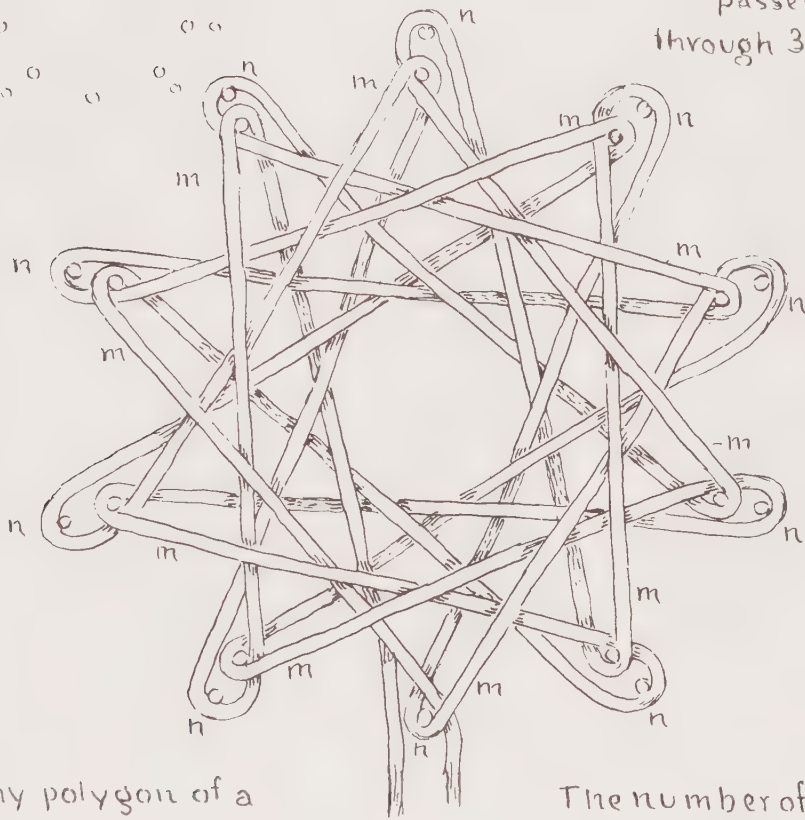
DECAGONAL KNOTDODECAGONAL KNOT



DECAGONAL KNOT

Detail

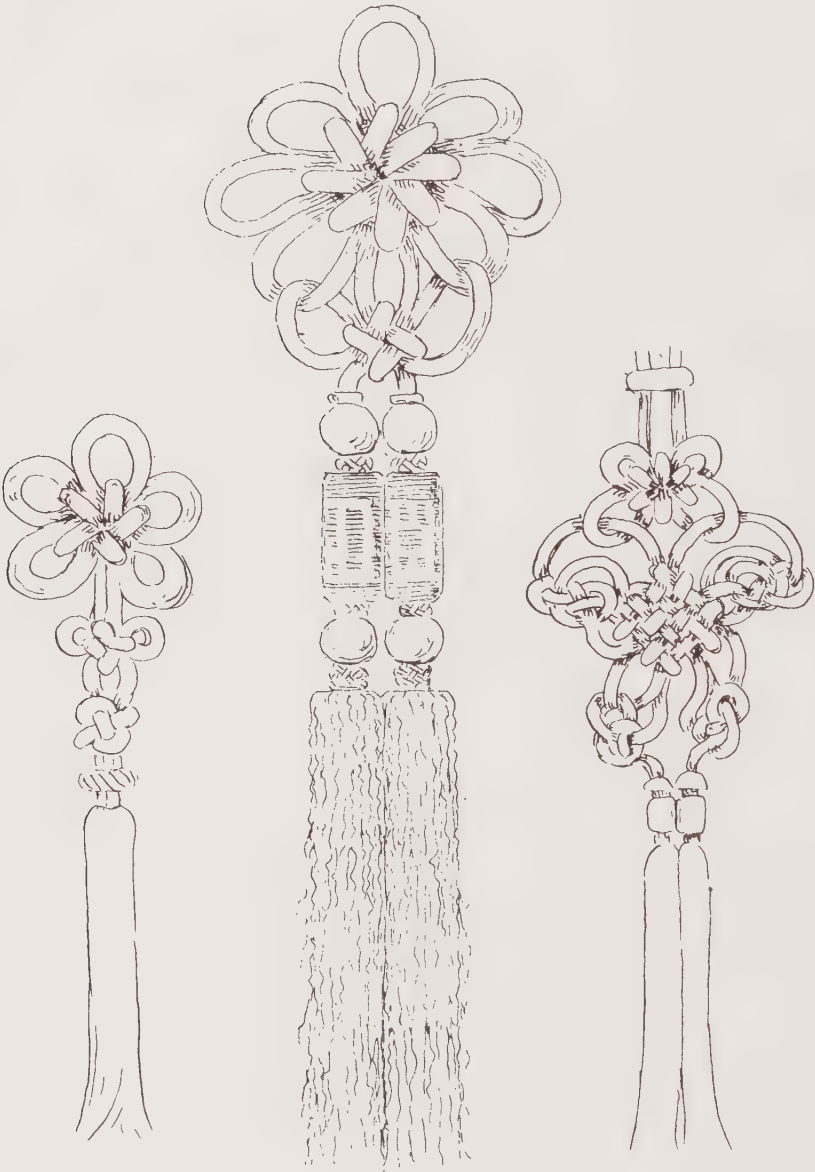
Each Bight  
passes  
through 3 Loops



Any polygon of a  
convenient number of  
angles may serve as a  
foundation for this Knot

The number of loops  
through which each bight  
passes must be less than  
one half the number of angles

In adjusting the knot  
release all the bights  $m, m, m, \dots$   
pull gradually and equally all the bights  $n, n, n, \dots$

CHINESE TASSEL

DOUBLE INTERLACING

These Knots (probably Chinese)  
are based on the  
Quadrangular Knot  
page 172

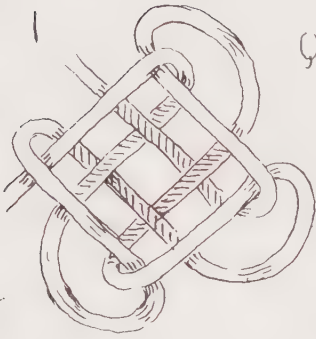
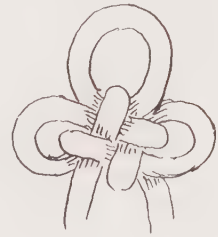


Fig. I shows  
the upper and lower  
strands,  
the lower strands shaded



The number of strands in each layer may vary from  
two to four, six or any convenient  
even number

In the process of tying the knot, elaborations may  
be introduced in which the Carrick Bend  
appears, pages 185, 186, 188

A  
diagram  
with pins, that  
correspond  
with the number  
of strands,  
is necessary, also

pins to hold the strands  
in place as the work progresses



A  
cork board  
6 or 8  
inches square  
is convenient for  
this  
and other intricate  
Knots

Two distinct layers  
Upper & Lower,  
the lower layer  
shaded

CHINESE  
DOUBLE  
BRAIDS

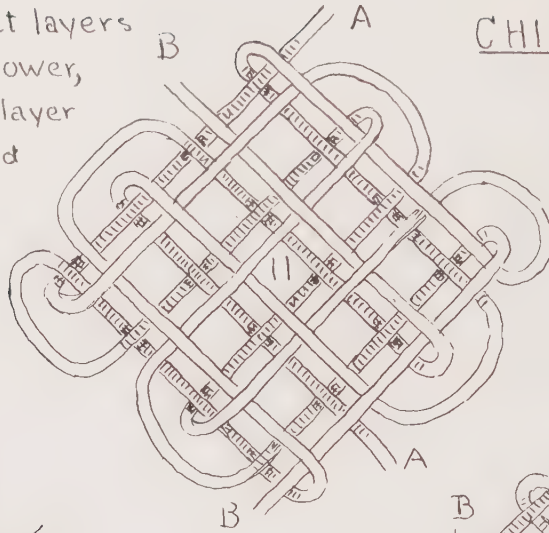


Fig. II  
4 strands  
wide

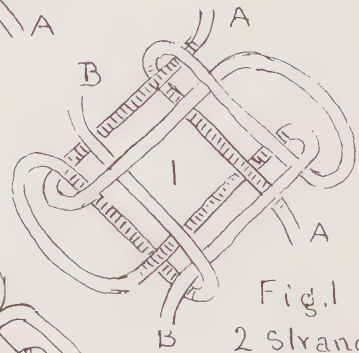
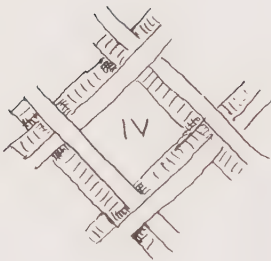


Fig. I  
2 strands  
wide

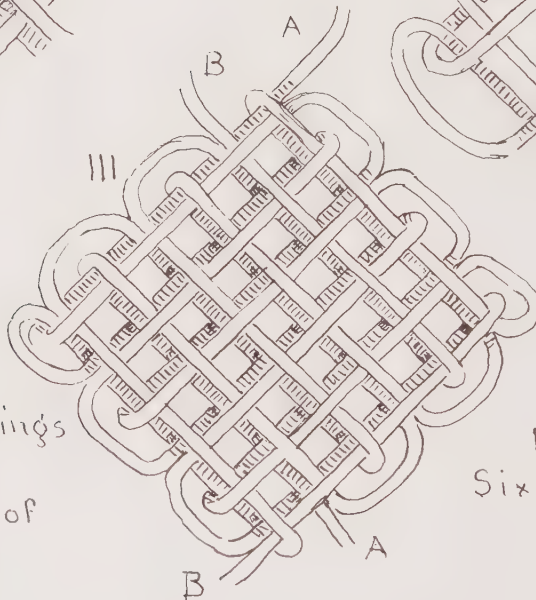


Fig. III  
Six strands wide

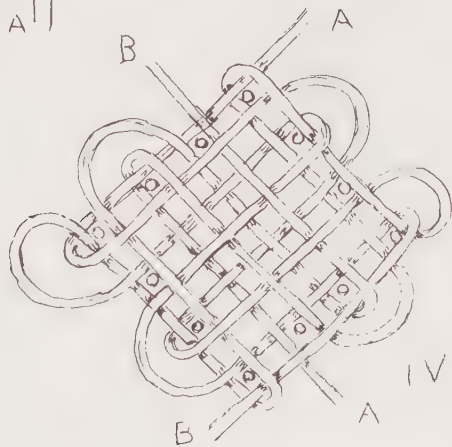
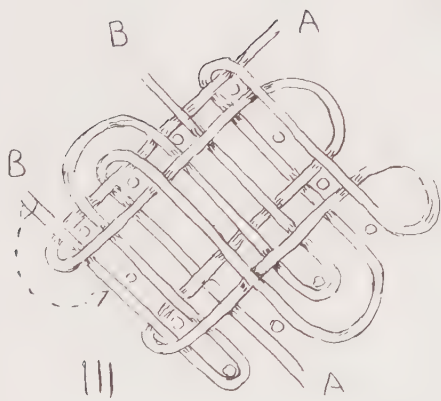
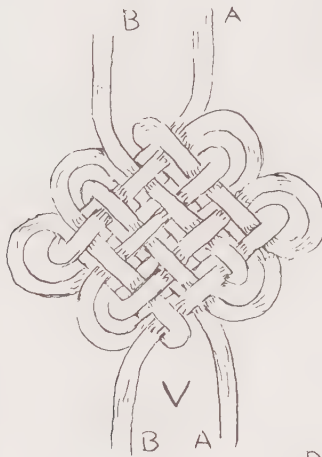
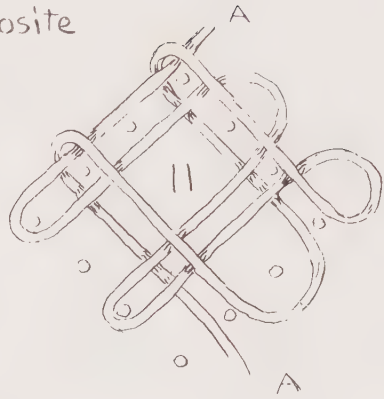
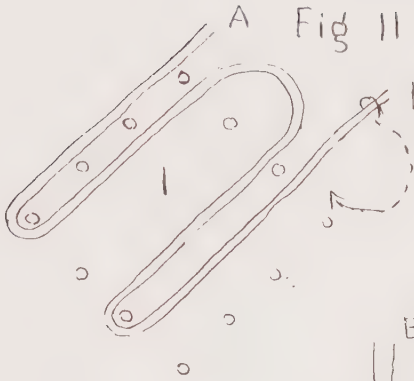
The interlacings  
are the  
repetition of  
Fig. IV

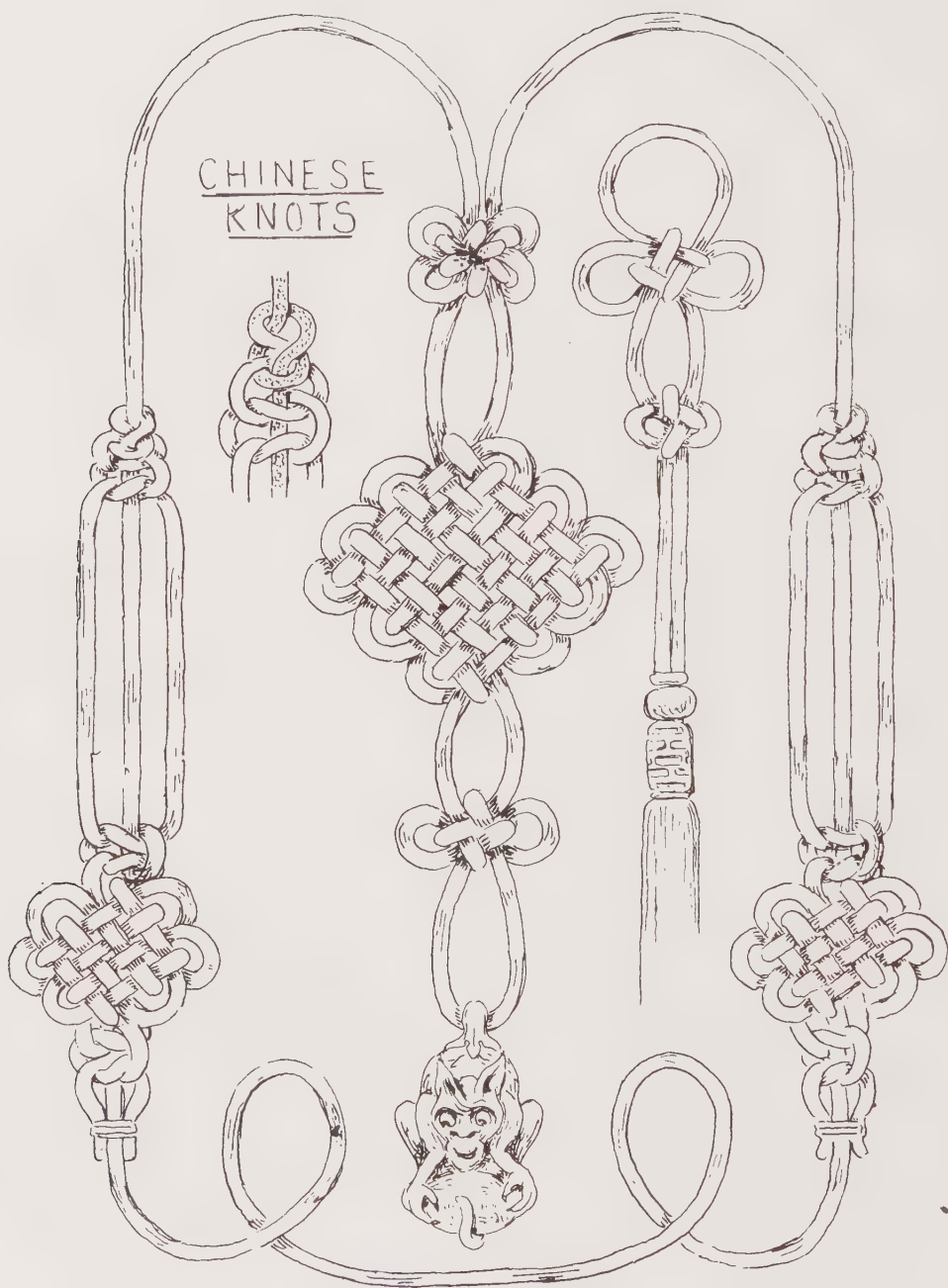
## DETAIL

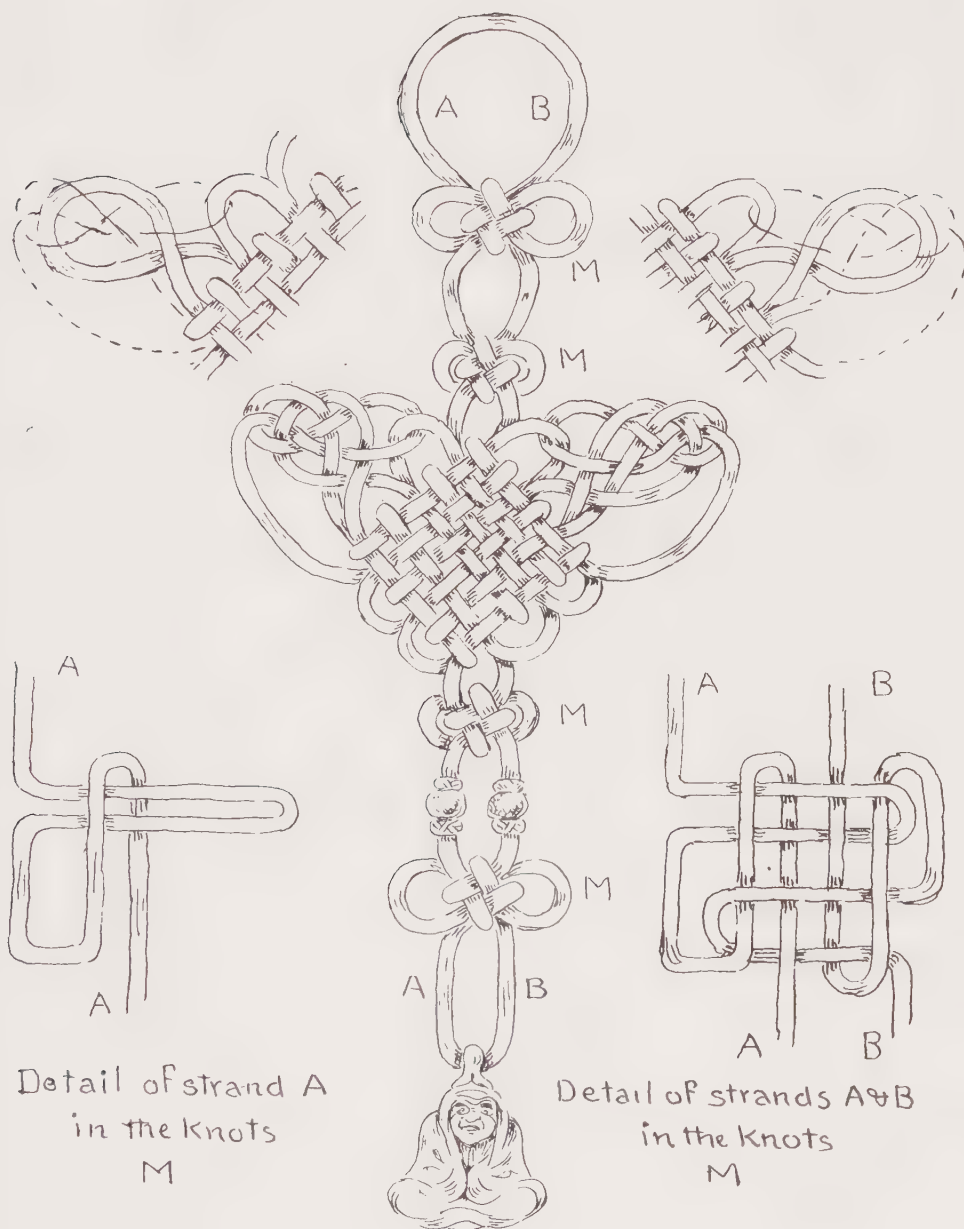
OF

Fig II on opposite

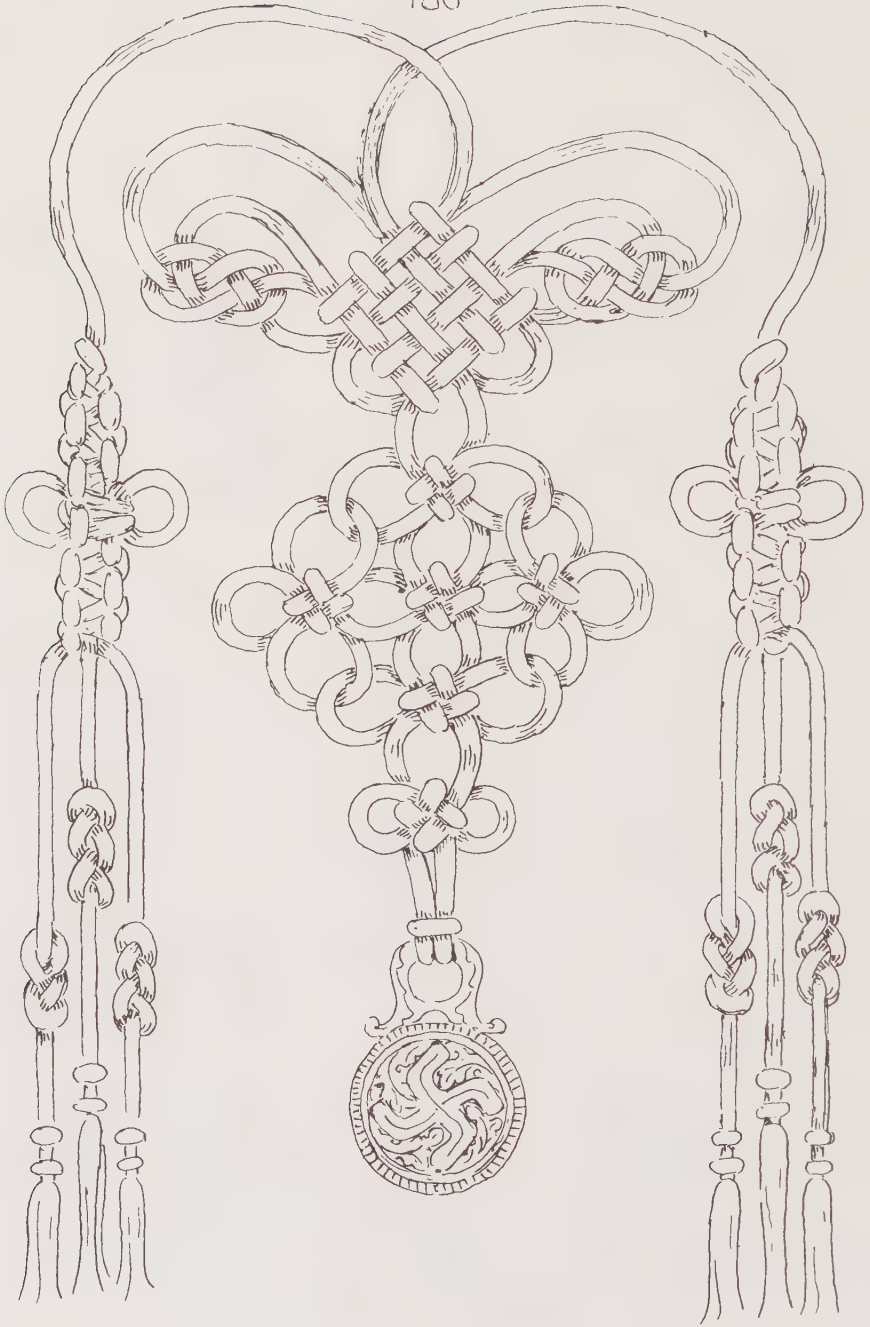
page



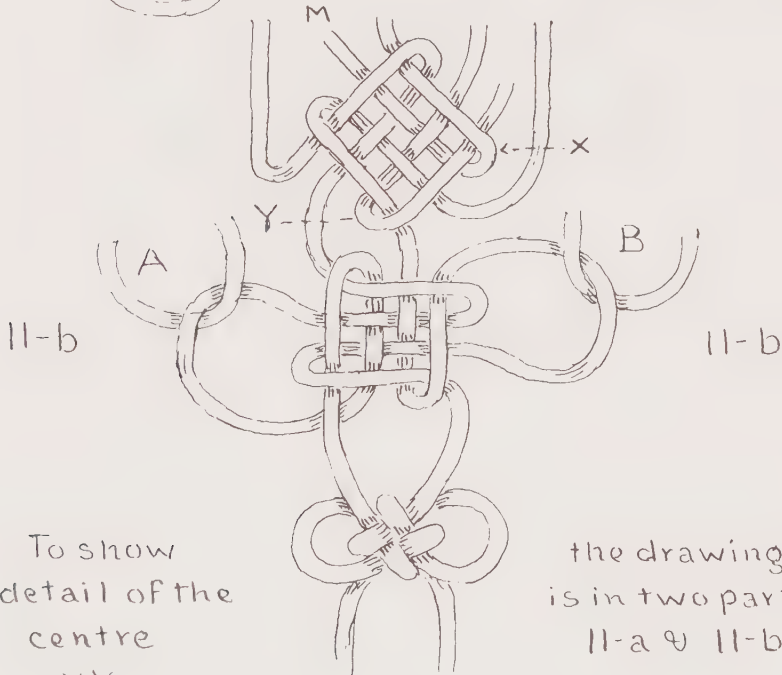
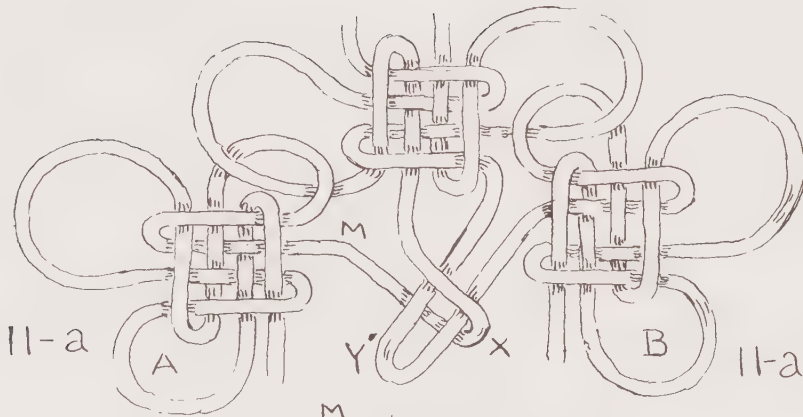








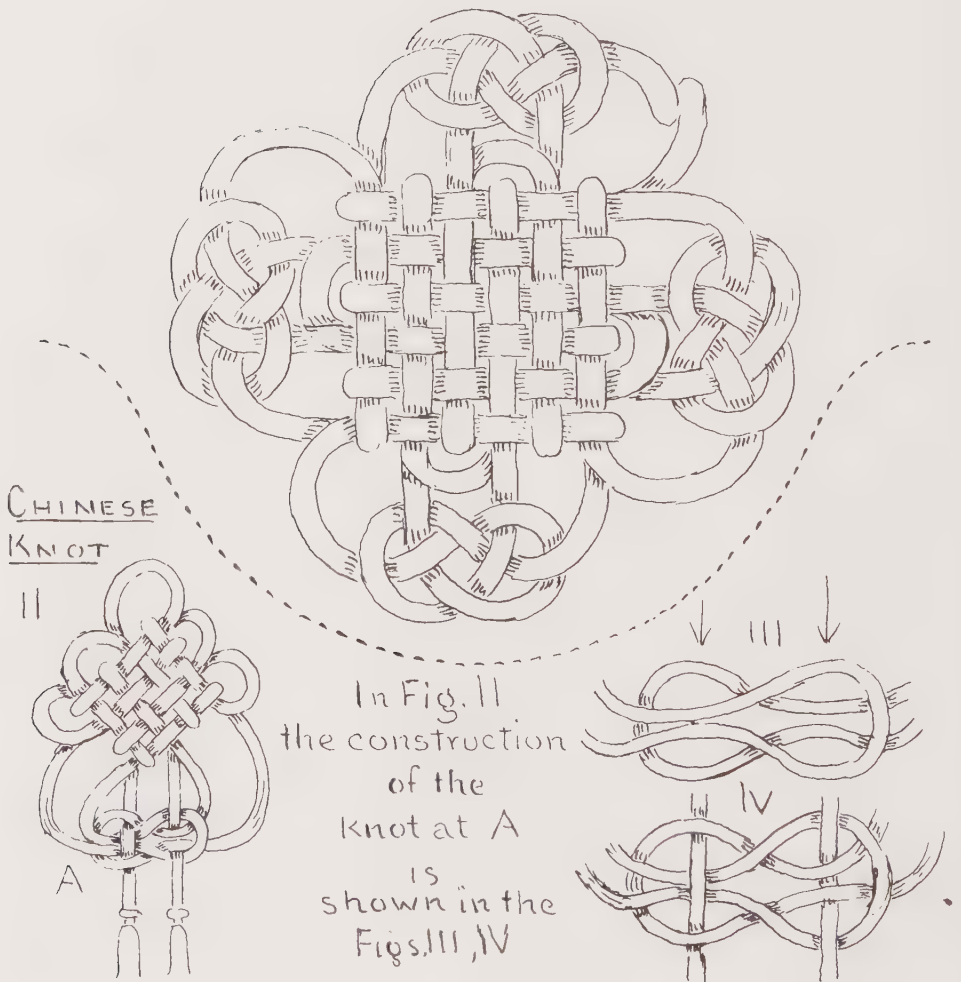




To show  
the detail of the  
centre  
XY

the drawing  
is in two parts  
11-a & 11-b

CARRICK BEND  
and  
CHINESE DOUBLE BRAID  
in combination  
Fig. 1

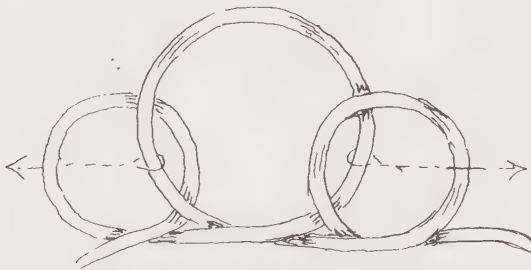


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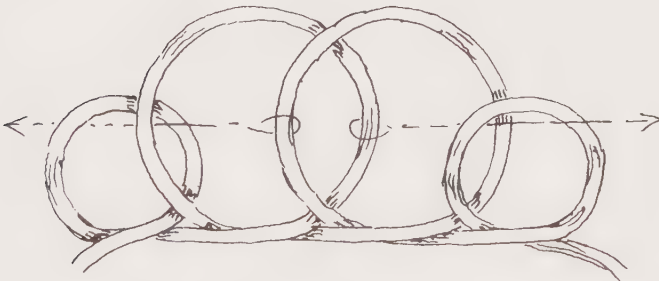
TRICK KNOTS



Handcuff



Sheepshank



Man-of-War Sheepshank



# A KNOT TIED WITH ONE HAND

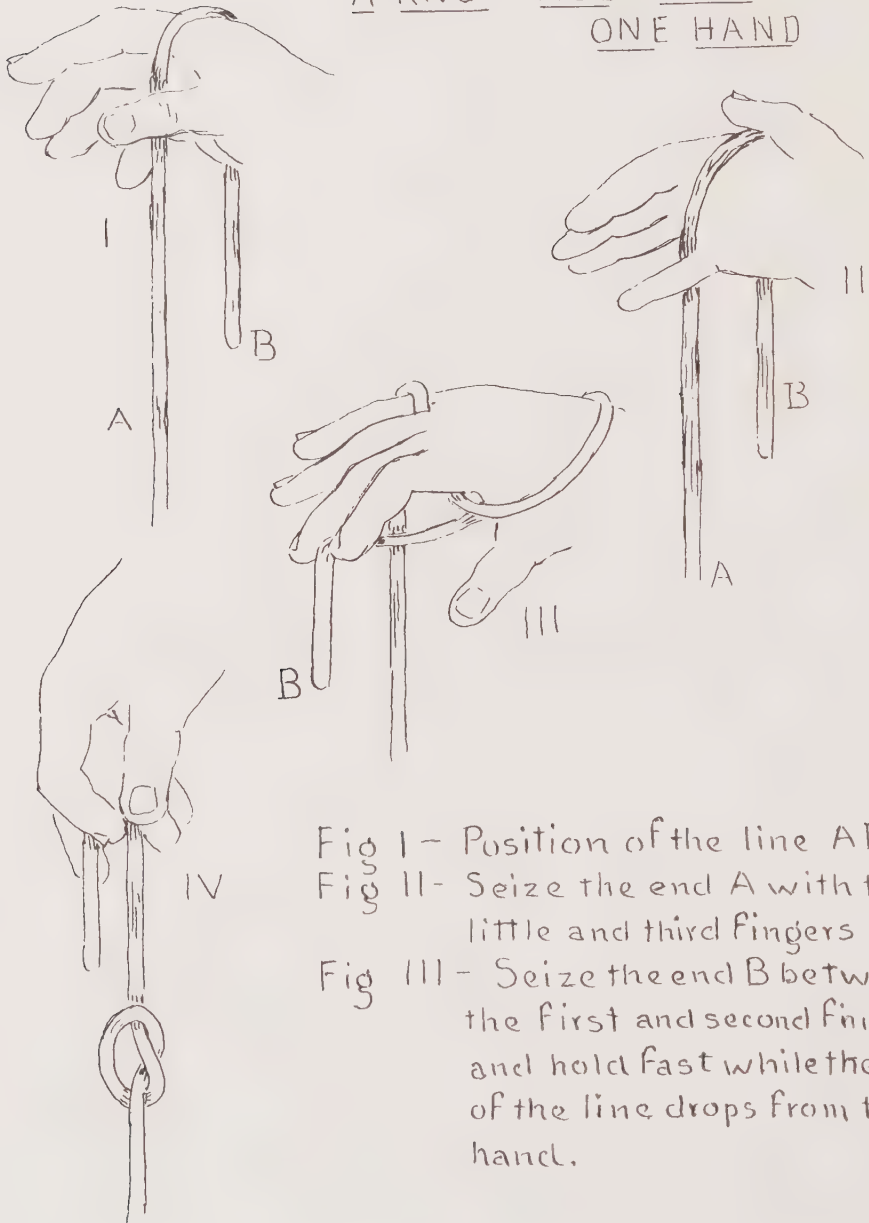


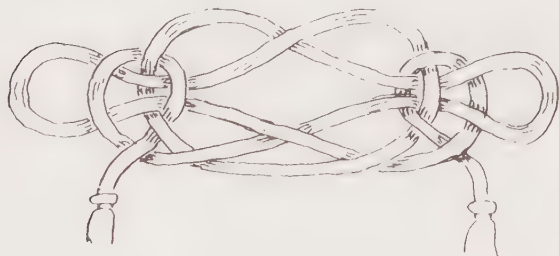
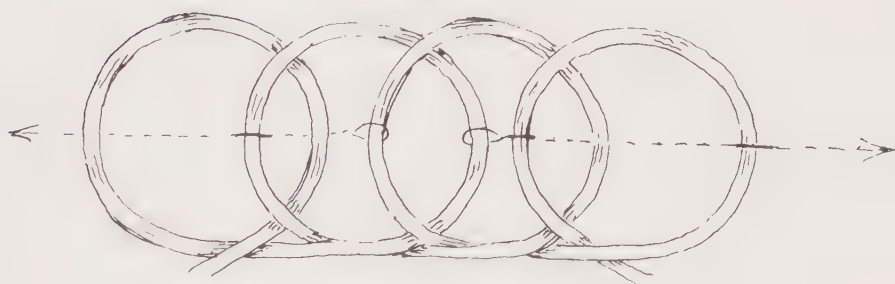
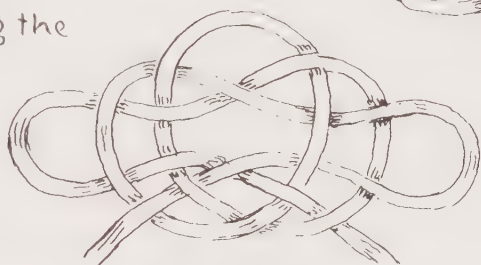
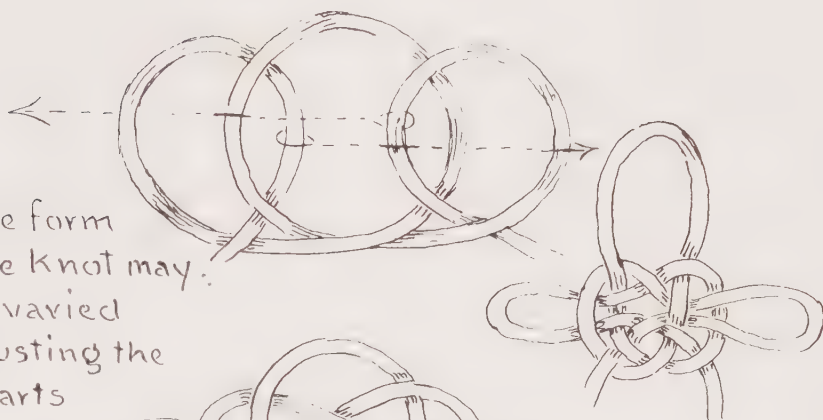
Fig I - Position of the line AB

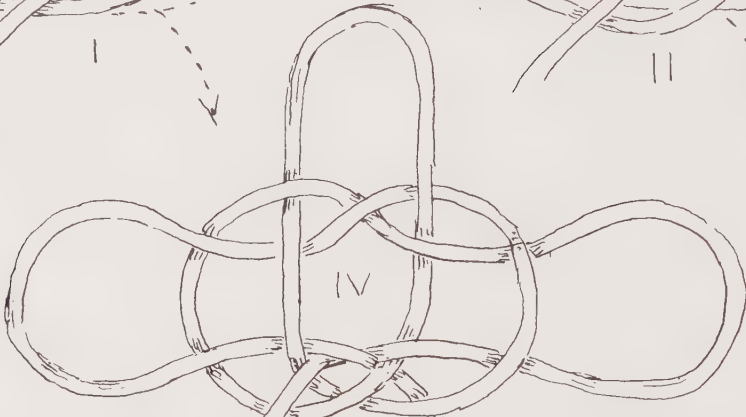
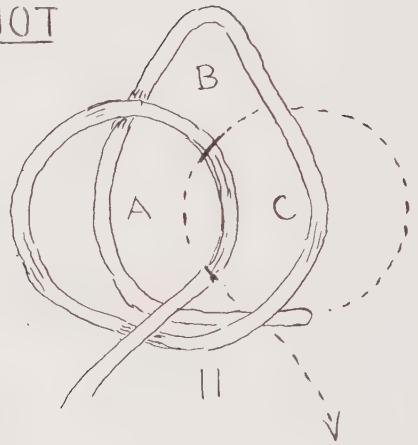
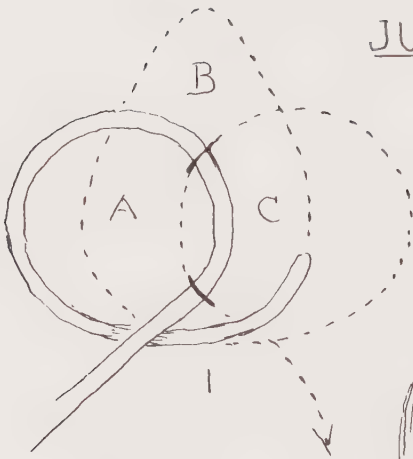
Fig II - Seize the end A with the little and third fingers

Fig III - Seize the end B between the first and second fingers and hold fast while the rest of the line drops from the hand.

TRICK KNOTS

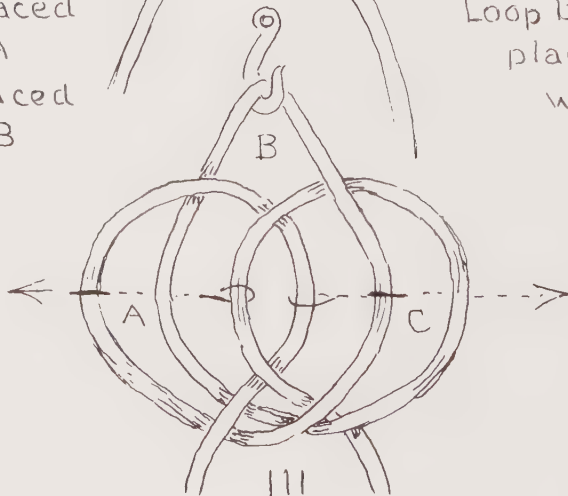
The form  
of the knot may  
be varied  
by adjusting the  
parts

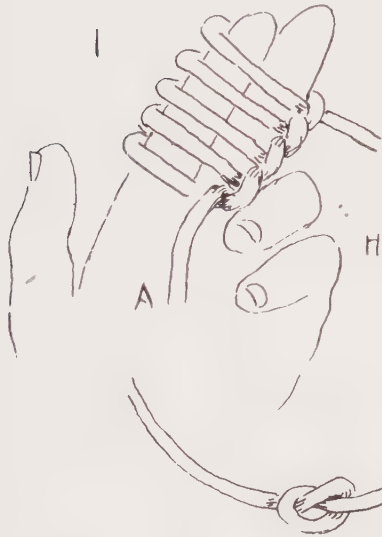


JURY KNOT

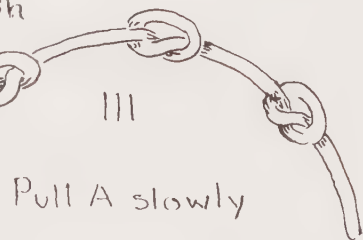
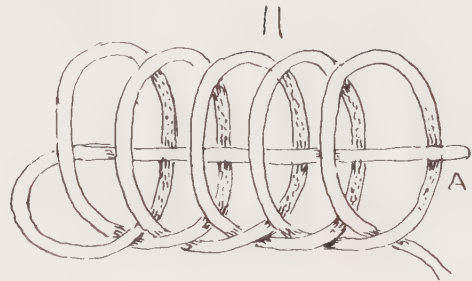
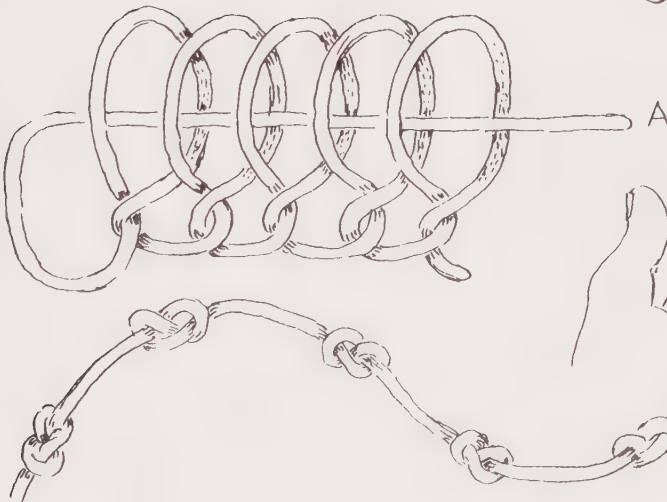
Loop B is placed  
under loop A  
Loop C is placed  
under loop B  
and over  
loop A

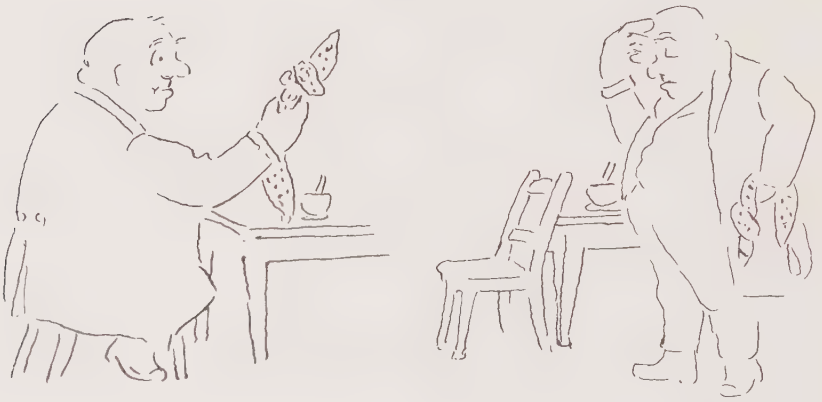
Loop B is held in  
place by a hook  
while A & C  
are pulled  
into  
position



TRICK KNOTSString of  
Overhand Knots

Pass A through  
the loops.  
Fig. II

Figure of Eight  
String



Adapted from the  
German



















